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A HISTORY OF MODERN PHILOSOPHY



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A HISTORY OF MODERN PHILOSOPHY

by WILLIAM KELLEY WRIGHT
DARTMOUTH COLLEGE 

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To the memory of my brother

JOHN STEPHEN WRIGHT

PREFACE

The primary purpose of this book is to introduce the history of modern occidental philosophy to college undergraduates who have had little or no previous acquaintance with philosophy, as well as to general readers not in attendance upon classes. The opening chapters are quite elementary, and by the time the more difficult philosophers are reached, the beginner will have gained his stride, and be ready for them.

In an introductory work, it is believed more important to direct attention to the achievements of each philosopher, to what affirmative truths he has discovered, than to his mistakes and inconsistencies, although the latter are not permitted to pass entirely without notice. Brief evaluations of a philosopher are occasionally offered from the respective standpoints of the realists, idealists, and pragmatists of our own time; among these I have endeavored to be impartial. The reader would derive altogether the wrong impression if he were to leave his study of the history of modern philosophy with the notion that it is the record of a series of failures, however brilliant. He will receive the right impression if he appreciates that while reality is too vast for any one thinker to have apprehended it completely, every major philosopher has disclosed insights for which the world is permanently his debtor.

A college course employing this book as a text could be conducted in different ways. For an ordinary three-hour course lasting one semester, there is ample material to keep a class profitably occupied. Some teachers of such a course, however, may prefer to omit a number of chapters, concentrate upon fewer philosophers, and assign supplementary reading in the sources, the writings of the philosophers them-

selves. In a five-hour course for one semester it would be possible to cover the whole text, and also assign a considerable amount of reading in the sources. Another possible arrangement would be to make the text the basis of one three-hour one-semester course, and to offer a supplementary two- or three-hour course in the sources, for students desiring it, keeping the two courses roughly parallel. The ideal plan naturally would be a course for an entire year, in which there would be abundant time for everything. The chapters supply sufficient orientation in the thought of each major philosopher to enable students to attack with interest and understanding the particular source materials to which they are most likely to be referred. General readers will find suggestions in the body of the book, as well as in the notes, for readings in the philosophers themselves. In extension courses it is hoped that this text will prove a practicable substitute for lectures and class discussions, and break the ground for further reading. However, endeavor has constantly been made to furnish an account of the development of modern philosophy that will be satisfactory, to the depth that it goes, for those who do not find it practicable to read further.

My original interest in the history of modern philosophy I owe to Professor James Hayden Tufts, whose course in the subject I took as an undergraduate, and under whom I studied as a graduate student. Professor James Edwin Creighton gave me valuable advice at the time when I started teaching the subject myself. I owe much to the students at Dartmouth College who have elected the course since I began giving it here in 1917. I have benefited by the suggestions and criticisms of present and former colleagues in the department of philosophy at Dartmouth College: Professors Maurice Picard, Eugen Rosenstock-Huessy, George F. Thomas, Philip E. Wheelwright, A. Myrton Frye, William A. Levi, and Donald Meiklejohn. Of the standard texts I have found most helpful those by Falckenberg (particularly in my opening chapter), Höffding, Windelband,

and, for German philosophers, the recent revisions of Ueberweg. When puzzled how to make a difficult point intelligible to beginners, I have consulted the popular expositions by A. K. Rogers, Josiah Royce, and Will Durant. I have profited by the suggestions of a reader of The Macmillan Company on several points of philosophical interpretation, and by the corrections of their literary editor on numerous details of linguistic usage. My wife and daughter have gone over the manuscript, and helped to make the language more intelligible. My wife has assisted with the proof. Miss Elizabeth Duffy has typed the manuscript with meticulous accuracy.

W. K. W.

CONTENTS

INTRODUCTION

CHAPTER

PAGE

I. PRELIMINARY	1
--------------------------	---

- (i) The Spirit of Modern Philosophy. (ii) Periods.
- (iii) Methods of Interpretation.

PART I

THE RENAISSANCE

DIVISION A. THE HUMANISTIC PERIOD

II. THE BEGINNINGS OF MODERN PHILOSOPHY	15
---	----

- (i) A Glance at Scholasticism and St. Thomas Aquinas. (ii) Why the Renaissance Broke with Scholasticism. (iii) Merits and Faults of the Humanists. (iv) Three Representatives of the Period: Nicholas of Cusa, Paracelsus, Machiavelli. (v) Bruno.

DIVISION B. THE NATURAL SCIENCE PERIOD

III. FRANCIS BACON	39
------------------------------	----

- (i) Introductory. (ii) Personality. (iii) The Idols. (iv) Induction.

IV. HOBBS	52
---------------------	----

- (i) Life. (ii) Materialism. (iii) Psychology of Cognition and Volition. (iv) Ethics and Political Philosophy. (v) Influence.

V. DESCARTES	70
------------------------	----

- (i) Life. (ii) Method. (iii) *Cogito ergo sum*. (iv) God. (v) The Three Substances. Mind and Matter. Interactionism. (vi) Contributions of Descartes. (vii) Cartesianism. The Occasionalists. Geulincx and Malebranche.

CHAPTER

PAGE

VI. SPINOZA 90

(i) Life. (ii) Motive and Method. Kinds of Knowledge: Opinion, Reason, Intuition. (iii) God and His Attributes. Parallelism and Panpsychism. *Natura naturans* and *Natura naturata*. (iv) Modes, Finite and Infinite. Psychophysical Parallelism. (v) Human Freedom and Salvation. (vi) Social Philosophy.

VII. LEIBNIZ 114

(i) Introductory. (ii) Idealism, Continuity, Force. (iii) Monads. Identity of Indiscernibles. (iv) Pre-established Harmony. (v) Panpsychism. (vi) Theory of Knowledge. Eternal Truths and Truths of Fact. (vii) Arguments for God. (viii) The City of God. Theodicy. (ix) Achievements.

PART II

THE ENLIGHTENMENT

VIII. LOCKE 139

(i) The Attitude of the Enlightenment. Empiricism. (ii) Life of Locke. (iii) Rejection of Innate Ideas. (iv) Origin of Ideas. Primary and Secondary Qualities. Modes. Substances. Relations. Causation. (v) Language. Use and Abuse of Words. Real and Nominal Essences. Genera and Species. (vi) Knowledge: Intuitive, Demonstrative, Sensitive. (vii) Philosophy of Religion and Ethics. Evidence of God. Miracles. Toleration. (viii) Political Philosophy. Social Compact. Natural Rights. Influence. (ix) Philosophy of Education.

IX. BERKELEY 173

(i) Life. (ii) Rejection of Abstract Ideas. (iii) Mentalism. (iv) Answers to Objections. (v) Consequences of Mentalism. (vi) Is Berkeley Right? How Answered by Twentieth Century Idealism and Realism.

X. HUME 196

(i) Personality. (ii) Impressions and Ideas. (iii) Relations. (iv) Rejection of Substance. (v) Causation

CHAPTER

PAGE

(vi) Psychology of Belief and the Relation of Identity. (vii) In What Sense is Hume a Skeptic? (viii) Ethics and Social Philosophy. Sympathy. Utility. The State. Significance of Hume.

XI. OTHER PHILOSOPHERS OF THE ENLIGHTENMENT

219

(i) The British Moralists: Shaftesbury, Hutcheson, Adam Smith, Price. (ii) English Deism. (iii) Materialistic Psychology: Hartley, Priestley. (iv) The Attitude of the British Enlightenment to Religion. (v) The French Enlightenment. Voltaire. Diderot, and the Encyclopaedia. Condillac. Helvétius. La Mettrie. Holbach. (vi) Rousseau. (vii) The Enlightenment in Germany. Wolff. Lessing, Herder, Kant. (viii) The Scottish Philosophy: Reid and others. (ix) The Enlightenment in America. Samuel Johnson. Jonathan Edwards. Paine and others. Scottish Realists in America.

PART III

THE IDEALISTIC PERIOD

XII. KANT 253

(i) The Idealistic Period. (ii) Life and Personality of Kant. (iii) The Critique of Pure Reason. Synthetic Judgments *a priori*. Transcendental Aesthetic. Space and Time. Transcendental Analytic. Categories. The Self. The Transcendental Dialectic. The Soul. The World and the Antinomies. Rejects Traditional Arguments for God. (iv) Moral Philosophy. Categorical Imperative. Kingdom of Ends. Republicanism. Arguments for God, Freedom, Immortality. (v) The Critique of Judgment. Aesthetics. Teleology.

XIII. FICHTE AND THE ROMANTIC MOVEMENT . 294

(i) Life and Personality of Fichte. (ii) Science of Knowledge. (iii) Ethical Idealism and its Implications. Theory of Rights. The Closed State. The German Nation. The Blessed Life. (iv) The Romantic Movement. (v) Schelling.

CHAPTER

PAGE

XIV. HEGEL 316

(i) Life and Personality. (ii) Basic Conceptions: Whole and Part; Organic View; the Absolute; Concreteness; Negativity; Dialectical Method. (iii) Hegel's Logic: Principal Categories; Freedom; the Notion. (v) Philosophy of Nature. (vi) Philosophy of Mind: Subjective Mind (Psychology); Objective Mind (Law, Morality, Ethics); Absolute Mind (Art, Religion, Philosophy). (vii) The Successors of Hegel. The Right and the Left. Strauss. Feuerbach. Marx. Influence in Germany, Great Britain, America.

PART IV

RECENT PERIOD

XV. SCHOPENHAUER 355

(i) The Recent Period. (ii) Life and Personality of Schopenhauer. (iii) Basic Conceptions. (iv) The Four-fold Root of the Sufficient Reason. (v) The World as Idea. (vi) The Objectification of the Will. (vii) Aesthetics. (viii) Ethics and Religion. (ix) Criticisms.

XVI. NIETZSCHE 384

(i) Life. (ii) First Period. (iii) Second Period. (iv) Third Period. (v) Evaluations. (vi) Other German Philosophers of the Recent Period: Herbart, Lotze, Eucken, Vaihinger, Mach, Meinong, Husserl, Scheler, *et al.*

XVII. COMTE 404

(i) French Predecessors of Comte: De Maistre, Cabanis, De Biran, Ampère, Cousin, Saint-Simon. (ii) Life of Comte. (iii) Positivism and the Law of the Three Stages. (iv) Classification of the Sciences. (v) Sociology. (vi) Religion. (vii) Significance of Comte. (viii) French Philosophers since Comte: Renan, Taine, Ravaisson, Secrétán, Maritain, Gilson, *et al.*

XVIII. JOHN STUART MILL 430

(i) The Utilitarians: Bentham, James Mill, *et al.* (ii) Life of J. S. Mill. (iii) Logic. (iv) Positivism.

CONTENTS

xv

CHAPTER

PAGE

(v) Social Sciences: Ethnology, Sociology, Political Economy. (vi) Ethics and Political Philosophy. Utility, Liberty, Women, Representative Government. (vii) Philosophy of Religion. Utilitarians Subsequent to Mill.

XIX. HERBERT SPENCER 455

(i) Introductory. (ii) The Unknowable. Science and Religion. (iii) The Law of Evolution. (iv) Biology and Psychology. (v) Sociology and Social Ethics. Justice. (vi) Systematic Ethics. (vii) Evaluations.

XX. JOSIAH ROYCE 482

(i) The Idealistic Movement in Great Britain and America during the Recent Period. (ii) Life and Personality of Royce. (iii) Scientific Agnosticism. (iv) The Unity of the Self. (v) Arguments for Absolute Idealism. (vi) The Worlds of Description and Appreciation. (vii) Panpsychism and Related Doctrines. (viii) Freedom. (ix) The Problem of Evil. (x) Immortality. (xi) Loyalty. The Problem of Christianity.

XXI. WILLIAM JAMES 506

(i) Introductory. (ii) Philosophy and Temperament. (iii) The Pragmatic Method. (iv) Applications of the Method. (v) Pluralism. (vi) The Categories. (vii) The Nature of Truth. (viii) Religion. (ix) Radical Empiricism. (x) James and the New Realism.

XXII. JOHN DEWEY 530

(i) Introductory. (ii) Philosophy of Education. (iii) Reflective Thinking and Logic. (iv) Ethics and Social Philosophy. Religion. (v) Aesthetics. (vi) General Philosophy. Experience and Nature. Freedom of the Will. The Quest for Certainty.

XXIII. HENRI BERGSON 560

(i) Introductory. (ii) The Vital Impulse. (iii) Instinct and Intelligence. (iv) Life and Matter. (v) Morality and Religion.

CHAPTER	PAGE
XXIV. SAMUEL ALEXANDER	578
(i) Introductory. (ii) The New Realism. (iii) Space- Time and the Categories. (iv) Emergent Evolution. (v) Values: Truth, Morality, Aesthetics. (vi) Free- dom. (vii) Religion.	
NOTES	597
GLOSSARY	617
INDEX	627

A HISTORY OF MODERN PHILOSOPHY

CHAPTER I

PRELIMINARY

I. THE SPIRIT OF MODERN PHILOSOPHY

Probably the best way to catch something of the spirit which has made the achievements of modern philosophy possible is to observe how the prevailing characteristics of modern philosophy differ from those of earlier ages. These differences can be indicated under three heads.

First, modern philosophers are *scientific* in their usual attitude, in contrast to the more frequently *aesthetic* tendencies of ancient philosophers and the dominantly *theological* interests of the scholastics of the Middle Ages. The ancient Greek believed in beauty. His gods and goddesses, and the art and literature associated with them, were expressive of this belief. When his philosophy became differentiated from his religion, he continued to regard the cosmos as orderly and beautiful. Truth, beauty, and goodness remained indissolubly linked together in his mind. The highest good was the supremely beautiful (*tò kalón*). The virtuous man was "beautiful and good" (*kalok'agathos*). Reason ruled all; final causes and purposes determined the course of events and the innermost nature of things. His science was confident that the stars must move in circles; for is not the circle the perfect figure? The ends and values of things were believed to be present in their beginnings and to direct their development. Ancient treatises in philosophy were likely to possess high merit as literature in the sense of belles lettres. To be sure, the ancient philosopher was a courageous seeker after truth, ready to follow an argument to its logical conclusions wherever they might lead him; but his complete faith in order

and beauty largely decided the direction of his thinking. Values for him were likely to determine facts.

This faith, in the supremacy of what ought to be, persisted in medieval thought in a modified form, in which human philosophy was crowned by the divinely revealed *theology* of the Church. More assured than any human reasoning are the dogmas of religion. The province of philosophy is to endeavor to explain and demonstrate the truth of these dogmas so far as it lies within the capacity of human reason to do so. For philosophy is only the handmaiden of theology, and it is merely an intellectual satisfaction to understand something of what one accepts independently upon the superior authority of faith.

In opposition both to antiquity and the Middle Ages, the modern philosopher is *scientific* in his outlook. Values do not necessarily certify the truth of possible facts. Theology no longer sets limits to a philosopher's thinking nor dictates the conclusions at which he must arrive. Ceasing to be the handmaiden of theology, philosophy has instead become the interpreter of rapidly advancing sciences. Yet the modern philosopher is not afraid to speculate more boldly than scientists do, and he seeks to organize the results of the various natural and social sciences in a picture of the world as a whole, in which room will be found for such of the values of art, morality, and religion as can be shown to be consonant with the established results of scientific investigation. But it is necessary to disclose facts as they may be, and to learn to live as well as possible in the light of this knowledge. So an uncompromising search for truth is the chief characteristic trait of the modern philosopher. He loves beauty and he esteems personal virtue and social justice. But he cannot take a universe friendly to these values simply for granted. The first necessity is to know things as they are.

Secondly, the spirit of modern philosophy is *individualistic*, while those of both ancient and medieval philosophy were, in different ways, inclined to be *institutional*. Plato and

Aristotle, the two greatest Greek philosophers, usually wrote from the point of view of citizens of a free state. After the Greek States had lost their freedom, the Stoics found a compensation in the thought of the whole world as a great city-state (*polis*) of gods and men. Cicero and Seneca, in adapting Greek philosophy to Roman life, continued to think largely in terms of citizenship. Almost the only original achievement of the Romans in philosophic thought was the development of jurisprudence—the philosophy of law—an institutional subject. The usual tendency in ancient philosophy, except for the Epicureans and Neo-Platonists, was to regard men in terms of political institutions, as citizens or subjects. The city-state and the empire were both esteemed by the medieval philosophers, but were likely to be assigned to a place subordinate to the divinely instituted Church. The life of a man in the Middle Ages was determined in most of the aspects of his life by his institutional status in the Church and the feudal system. Philosophers were usually monks. While some of them were surprisingly independent in the expression of their thoughts, and as a rule received more tolerance than would have been the case in either Catholic or Protestant countries in the century immediately following the Reformation, nonetheless most of them reasoned as churchmen.

When compared with antiquity and the Middle Ages, modern philosophy can be characterized as individualistic. A modern thinker is an individualist in the sense that he makes experiments for himself, verifies hypotheses with his own eyes, and tests the logic of arguments with his own thinking. He looks to authorities for suggestions, and receives as probably true the information contained in standard books on his subject. But he accepts nothing for truth simply because it is asserted by some authority, no matter how venerable or widely esteemed. He resembles the modern poet, sculptor, and painter, each of whom expresses his own insights freely, following traditions only so far as he finds

them helpful. Originality is more praiseworthy than conventionality. The Protestant Reformation began, at least, with the claim that each individual ought to be free to read the Bible and interpret it for himself, and to pray to God and receive forgiveness from Him without the mediation of priests, saints, and sacraments. However, the Protestant churches soon developed their own systems of dogmas, and denounced heretics. So modern Protestant theologians, usually clergymen, have not as a rule been so independent in their thinking as modern secular philosophers. For while many of the latter have remained communicants in the churches, the greatest of them have not felt themselves bound by ecclesiastical authority.

Little hampered by institutional restraints, and working in fields where exact knowledge has not been established, the modern philosopher develops hypotheses freely, yet takes careful cognizance of new scientific developments bearing upon his problems. He is probably the most individualistic of all thinkers. No two great modern philosophers have ever agreed completely on all important subjects. Each philosopher examines evidence for himself and comes to his conclusions independently. Since the universe is so vast, and truth so many sided, it may well be that every philosopher who advances some novel interpretation of nature or man glimpses aspects of reality which no one had ever seen before. That, at least, is the conviction of those who believe in modern philosophy. Sometimes the divergence between philosophers is exaggerated. Most philosophers of any generation have agreed on most points. Individualism has seldom been carried to the point of eccentricity. The great variety of viewpoints has stimulated thought and led to progress.

Thirdly, modern philosophy has been *international*, whereas ancient philosophy was *national* and medieval philosophy *cosmopolitan*. Ancient European philosophy is almost entirely Greek philosophy. It expresses the Greek national consciousness and the Greek view of life. It could

originally have been thought out only in the vocabulary and grammatical structure of the Greek language. None but Greeks could ever have produced it, much as all subsequent ages have profited by it. Medieval philosophy was cosmopolitan in both a good and a bad sense. The monks thought, taught, and wrote their philosophy in Latin,—the universal tongue of scholars at that time. This was good, since they travelled freely from one country to another and profited by a universal exchange of ideas in a language that is precise in its use of terms. It was bad, in that Latin was the vernacular of no one. Only abstract subjects could readily be discussed in it. Many phases of the national and personal life of laymen found no expression in the writings of the monks. Secular interests in general received scant recognition. The atmosphere was unfavorable for direct observation of natural processes; philosophy was too much absorbed in definitions of abstract terms and deductions from them.

Modern philosophy has been the product of many men of many nations, mostly laymen, who have thought in their own language and interpreted life as they have experienced it among their fellow countrymen. Their more technical works during the sixteenth and seventeenth centuries were likely to be published in Latin, and so made available to scholars everywhere; subsequently the most important books have either appeared in English, French, or German, or have later been translated into one or more of these three modern universal languages of scholars. So modern philosophy has its roots in national life somewhere, and in that sense is national. On the other hand, the philosophers of each modern nation eagerly study the contributions of their colleagues in other lands. (In this comparison I am indebted to R. Falckenberg, *History of Modern Philosophy*.)

II. THE PERIODS OF MODERN PHILOSOPHY

It is a mistake to suppose that there is any precise date when medieval philosophy ended and modern philosophy

began. For one thing, medieval philosophy has never ended; it lives on today. A revival of scholasticism, initiated by Leo XIII, the late Cardinal Mercier and others, continues to be vigorously promoted by orthodox Roman Catholic scholars under the name of Neo-Scholasticism. These men believe that the teachings of St. Thomas Aquinas in the thirteenth century can be adapted to the science and social life of the twentieth century without abandoning anything essential in scholasticism; they are willing to accept only those features of modern philosophy that are compatible with it. Most of the theologies of the older Protestant churches were formulated during the sixteenth century previous to the work of most of the great secular modern philosophers and so imply a great deal of the scholastic point of view; the consequence is that the more conservative Protestant theologians of the present time probably have quite as much in common with St. Thomas Aquinas, or at least with St. Augustine of Hippo, as they have with seventeenth century thinkers like Francis Bacon and Descartes or with subsequent secular philosophers.

Modern philosophy was anticipated whenever and wherever anyone started to think independently of the accepted dogmas and to reason out things for himself. This is true of Roger Bacon (1214–1294), who, however, had little influence upon subsequent thinkers; so we cannot date the beginning of modern philosophy with him. There were many writers in Italy in the fifteenth century who on various points anticipated modern philosophy, and can be regarded as its forerunners. A revival of the study of the classics in an Academy at Florence in 1440, in conscious imitation of Plato's Academy, marked a strong desire to understand ancient philosophy in the spirit of the ancients themselves, and to break away from scholasticism. Perhaps the best date to set for the beginning of modern philosophy (although it is extremely arbitrary) is 1453, when the Turks took Constantinople, the Byzantine Empire came to an end, and most of the Greek

scholars who had not already done so came to Italy and further stimulated the desire to understand ancient Greek philosophy from a secular point of view.

The epoch of modern philosophy which began in 1453 is called the Renaissance. It is subdivided into two periods. During the first of these, the Humanistic Period (1453 to the death of Bruno in 1600), the leadership in philosophy was in Italy, and inspiration was drawn from the study of the Greek and Latin classical philosophers (instead of the medieval school men), although there was also much interest in what little modern science then existed. The second period of the Renaissance dates from 1600 to 1690. This is the brilliant century of Francis Bacon and Thomas Hobbes in England, and of Descartes, Spinoza, and (in part) of Leibniz on the continent of Europe. All the philosophers of this period consciously imitate and adapt the methods and points of view of the natural scientists contemporary with them, and themselves in some cases make contributions to mathematics and the natural sciences. All are confident of the ultimate success of philosophy in disclosing the nature of reality, and most of them do not hesitate to develop systems. Although this period is formally brought to an end in 1690, some of its philosophers, like Descartes, Spinoza, and Leibniz, have a great deal of influence on many of the philosophers of the twentieth century.

The Enlightenment (*L'Illumination*, *Aufklärung*) was inaugurated with the publication of Locke's *Essay on the Human Understanding* in 1690. Among the great thinkers in this period are Locke, Berkeley, and Hume in Great Britain and Voltaire and Rousseau in France. These philosophers are not elaborate system builders like those of the preceding period; they believe that the proper study of mankind is man rather than the universe; they are vigorous demolishers of superstition and upholders of individual liberty and the rights of man. Their thought was stimulated by the English Revolution of 1688, and their influence was a partial

cause of the American Revolution in 1776 and the French Revolution in 1789.

While it is customary for historians to bring this period to an end in 1781 (when a new movement certainly did begin in Germany), it is impossible to set a positive date for its termination. Such nineteenth century philosophers as Jeremy Bentham, John Stuart Mill, and Auguste Comte can in some respects be classified as belonging to a continuation of the Enlightenment. In many respects such twentieth century philosophers as William James, John Dewey, George Santayana, and Bertrand Russell express the spirit of the Enlightenment.

The Idealistic Period is usually dated from 1781 (when Kant's *Critique of Pure Reason* appeared) to the death of Hegel in 1831. Germans then led the world in the originality and depth of their philosophical thought. In some form or other, each of the German philosophers of this period believed that the world is spiritual in nature,—the expression of a universal Mind or Spirit. Such a point of view was inspiring to poetry and religion. This was the great Romantic age in German literature (Goethe, Schiller, and many others). English poets like Wordsworth, Shelley, Coleridge, Tennyson, and Browning, as well as the American Emerson, express thoughts strikingly similar to the German idealistic philosophers, whom it is not necessary in all cases to suppose that they studied thoroughly. The idealistic movement inspired many of the best philosophers of the later nineteenth century; it continues to have adherents today, most notably perhaps in Great Britain and Italy.

It will be convenient to designate the generations in the history of modern philosophy subsequent to the death of Hegel as the Recent Period. In it persist influences coming down from all the other periods, no one of which has really ended. New in the Recent Period has been the influence on philosophy of the idea of Evolution, which has become universally accepted in astronomy, geology, and biology, and

has given a different method of interpretation to history and the various social sciences. Realism and Pragmatism are marked tendencies of the twentieth century, especially in Great Britain and America.

Therefore, with the reservations already mentioned, we may list the periods of modern philosophy together with some of the philosophers of each who will be discussed in this book as follows:

Renaissance: { *Humanistic Period*, 1453–1600 (Bruno).
 { *Natural Science Period*, 1600–1690 (Bacon,
 Hobbes, Descartes, Spinoza, Leibniz).

Enlightenment, 1690–1781 (Locke, Berkeley, Hume).

Idealistic Period, 1781–1831 (Kant, Fichte, Hegel).

Recent Period, since 1831 (Schopenhauer, Comte, Mill, Spencer, Nietzsche, Royce, James, Dewey, Bergson, Alexander).

III. METHODS OF INTERPRETATION

There are three ways in which a philosopher must be considered if we are to understand his position in the history of modern philosophy. All three must always be taken into account, although their relative importance varies with each man.

First, the *logical relation* of the thought of a philosopher to his predecessors and successors must be estimated. He may *directly oppose* his predecessors and attempt to break away from them altogether and start off in entirely new directions, although invariably he unconsciously accepts more from them than he realizes. Bacon and Descartes, as we shall see in later chapters, are illustrations of this. On the other hand, a modern philosopher may *follow the logical consequences* of some of the thoughts of his predecessors further than they have done. Thus Spinoza and Leibniz, as we shall find, each

brings to its culmination a different tendency in the thought of Descartes. We shall see Berkeley and Hume pushing the empiricism of Locke to consequences of which Locke certainly did not dream and of which he would not have approved, but which he could not easily have escaped without modifying his whole standpoint. Again, a modern philosopher may *effect a compromise* between, or if he is great enough, a *synthesis* of, two rival tendencies in previous thought. In Kant we shall find the opposing tendencies of rationalism and empiricism combined in a novel point of view. Hegel believed that he had effected a happy synthesis of all previous philosophy. Comte and Spencer each advanced a synthetic interpretation of his own.

Necessary as it is to study philosophers in their logical relationships with one another, this must be done with caution. Any great modern philosopher is related to several, or perhaps a great many other philosophers. In emphasizing certain of these relationships we must not forget the existence of the others, even if we do not have the leisure to follow them out. For instance, if we were to think of Hume only as the skeptic whom Kant endeavored with some success to refute, we should get a very inadequate conception. If we compare James and Dewey as pragmatists, we must not overlook the neo-realistic tendencies in the one and the Hegelian survivals in the other. Furthermore, the thought of each great philosopher has something unique about it, which gives it a characteristic stamp of its own. He must be studied by himself, as well as compared with other philosophers.

Secondly, each philosopher should be regarded as *an interpreter of the time and place in which he lived*. His thought is an expression in some way of the scientific, religious, moral, and economic outlook of his time. Descartes so completely expressed what is best in the French national genius that almost every subsequent French writer on subjects at all philosophical in character shows his influence in some way or other. The greatness of such a philosopher as Locke

is to be found in his stating more clearly than anyone else could do what very many were thinking in politics, education, and religion, as well as in logic, psychology, and metaphysics. In consequence almost every thinker for the hundred years following his decease shows the influence of Locke. Even men like Bruno and Spinoza, whose greatness was not appreciated until long after they died, need to be studied in the background of their own times, for they necessarily interpreted reality in light of the experience then available. That only later ages have understood their worth may have been owing to their own faulty modes of communication, or it may have been due to the stupidity of their contemporaries.

Thirdly, the *private life and personality* of each philosopher must be taken into account. No one in the seventeenth century but a lonely excommunicated Jew like Spinoza would have snatched at the mechanistic side of Descartes and Hobbes and given it a spiritual interpretation that could afford peace and serenity to his own tortured soul. Only enthusiastic lovers of the strenuous life like Leibniz and Fichte could have found ground for unqualified optimism in the prospect of an immortal life of unceasing activity. No one but a neurotic and selfish lover of success with a distaste for having to work for it, such as Schopenhauer, would have seen in such a prospect the justification for a philosophy of unqualified pessimism and world renunciation. The philosophy of every great thinker is the most important part of his biography. All that he is by nature and nurture, and all that he has experienced, enrich his understanding of man and the universe; his philosophy is an interpretation of his life, and reveals what kind of man he really was. Conversely, and more important for us as students of the history of modern philosophy, we must know what kind of man a philosopher was, in order to discern the import of his philosophy.

PART I

THE RENAISSANCE

DIVISION A

The Humanistic Period

CHAPTER II

THE BEGINNINGS OF MODERN PHILOSOPHY

I. A GLANCE AT SCHOLASTICISM AND SAINT THOMAS AQUINAS

As the one great institution of antiquity that had survived the Dark Ages, the Christian Church became the chief civilizing agency in shaping the life and thought of the later Middle Ages. The monks, who had preserved the ancient manuscripts, were the first to study them. Their interest naturally was theological. Just as the ruins of ancient public buildings furnished stones for the erection of medieval churches and palaces, so the great structures of ancient thought supplied material for the development of Scholasticism (medieval theology and philosophy). In the one case as in the other, material was appropriated to new uses without much regard for its original purpose.

In the writings of St. Thomas Aquinas (1225-1274), "the angelic doctor," Scholasticism reached its most comprehensive and consistent development. St. Thomas knew that the works of Aristotle contained the most complete and systematic presentation of science and philosophy then in existence. He therefore made Aristotle, to whom he refers as "the philosopher," without further specification, his principal, although by no means his only, authority on philosophical and scientific subjects. However, he is not so much concerned to expound Aristotle as to appropriate what he believed to be best in his thought, and to adapt it to the requirements of medieval theology. So, whereas Aristotle believed nature to be a graded development from lower to higher forms, St. Thomas regards the world as having been once for all

created by God. While Aristotle thinks of the soul as the *entelechy*, or determining and purposive form, of the body and inevitably bound up with its nature and destiny, the angelic doctor makes the soul a separate entity able to exist independently, and in the case of the angels without a body at all. For once preferring Plato's classification to that of Aristotle, St. Thomas recognizes the four cardinal virtues of wisdom, courage, temperance, and justice as "natural virtues" which man can appreciate apart from divine grace. To these he adds the three "Christian virtues" of St. Paul—faith, hope, and charity—which are imparted to man by divine beneficence. In general, to the secular view of *nature*, known to ancient pagan philosophy, St. Thomas adds that of *grace*, the realm of Christian believers during this life, and also that of *glory*, which they shall attain beyond the grave.

It has always seemed to the Thomists (followers of St. Thomas) that their philosophy marks a great advance upon Aristotle. The narrow domain of nature, which the ancients imperfectly interpreted by the "natural light" of human reason, Thomistic theology apprehends with wider and truer understanding. The errors of Aristotle are corrected and his deficiencies supplemented. Thomism offers an impressive interpretation of man as he lives here and shall live hereafter.

There is a sense in which it may be said that St. Thomas was the most successful philosopher who has ever lived. The ambition of every philosopher, if he thought it at all possible to realize it, would be to bring together in a unified presentation all the knowledge of his own and previous ages, so far as it could be made to throw light upon the nature and destiny of man and his place in the universe. Such a philosophy would at once satisfy intellectual curiosity, afford practical guidance in the conduct of life, and furnish a picture of reality as satisfactory aesthetically as truth will permit. St. Thomas came nearest of all European philosophers to realizing this ambition. He stated fully and clearly the principles of philosophy and theology, as they were then con-

ceived, on both the theoretical and practical sides. In doing so he took into account all the knowledge available in his time. If he did not himself develop his philosophy far upon the aesthetic side, this was done soon afterwards by Dante, who in the *Divine Comedy*—perhaps the greatest of all philosophical poems—made vivid the values of Thomism in all their beauty and sublimity.

II. WHY THE RENAISSANCE BROKE AWAY FROM SCHOLASTICISM

Why then did the men of the Renaissance break away from Scholasticism? Why are not all of us Thomists today?

In the first place, a *division within Scholasticism itself* became acute a generation after the death of the angelic doctor. This was followed by endless and bitter controversies throughout the fourteenth and fifteenth centuries. St. Thomas taught that God's commandments, on which for him ethics depend, are in accordance with His reason; reason is therefore supreme in God and in the universe. John Duns Scotus, who died in 1308, was a Franciscan monk (the Franciscans were the rivals of the Dominicans to whom St. Thomas had belonged). Duns Scotus became the founder of the Scotists, the chief opposing school to the Thomists. He taught that God created the world by an arbitrary act of His will; goodness, justice, and the moral law are absolute simply because God has willed them to be so; He could supersede the moral law if He chose; that is why the Church has the right to grant dispensations and indulgences. Though a scholastic and a devout son of the church, Duns Scotus was unconsciously weakening her authority in making her commands, and even those of God Himself, purely arbitrary and almost irrational, and in emphasizing divine and human freedom and individuality in opposition to Thomistic determinism.

Another Franciscan, William of Occam, who died in 1332,

revived *nominalism*, which, in opposition to the *realism* of St. Thomas and Duns Scotus, denies the reality of universals or concepts; the universal "man," for instance, is merely a word, a name, and the only real men are individuals; and so of "plant," "animal" and all other universals. Nominalism, although not so designed by Occam, ultimately becomes a very disturbing doctrine. From an orthodox point of view, the Holy Catholic Church is one in all its extent throughout the world, present, past, and future, and so ought logically to be conceived as a universal in the realistic sense; otherwise individual churches would be more real than she. Man as a universal ought to be more real than individual men; else man in the sense of all mankind could not have fallen in Adam, and later, in the case of the elect, obtained salvation through the sacraments of the universal Church. On the contrary, nominalism might be taken to mean that each individual man falls and is saved apart from the rest as an individual—which Protestantism was ultimately to teach. If nominalism were true, secular powers might be thought to have individual rights of their own in opposition to the universal Church and the Holy Roman Empire. Individual nations might prefer to produce literature in their own tongues and neglect Latin, the language of the universal Church. Occam, in reviving nominalism, was preparing the way for such revolutionary tendencies. (Realism, to be sure, has been accepted in modern times by many who do not adhere to orthodox medieval theology; but realism as such is logically compatible with the latter and nominalism is not.) Moreover, Occam thought it impossible to demonstrate philosophically the existence and unity of God; these he could only say ought to be accepted in faith upon the authority of the Church.

Subsequent nominalists became increasingly skeptical in their role of philosophers. Human immortality, the incarnation and atonement of Christ, the 'real presence' of Christ in the bread and wine of the blessed sacrament, and many

other cardinal teachings of the Church,—these they thought could not be demonstrated or even understood through human reasoning. At first such doctrines continued to be sincerely believed by nominalistic philosophers as mysteries of faith to be accepted upon the authority of the Church. Later on they were probably only nominally professed by such philosophers in order to escape persecution.

Let us now pass to the second reason why the Renaissance broke with the older medieval point of view. While the later medieval scholastics were concluding that human thinking of itself can defend fewer of the doctrines of the Church, they were finding it a *powerful tool in the investigation of reality in other fields*. They studied anew Aristotle's works on physics, together with those of medieval Arabian and Jewish natural philosophers, who had already made new advances in arithmetic, algebra, and the beginnings of chemistry. They caught glimpses of the fruitfulness of experimental observations and of mathematical deductions combined with them. To be sure, prior to the seventeenth century no new method of research was discovered that was so systematic, thorough, and free from inconsistencies as thirteenth century scholasticism had been in the hands of men like St. Thomas. But it now became clear that the world of nature does not disclose itself adequately by the mere employment of syllogisms in the scholastic manner. On the other hand, new discoveries can be made in other ways.

There came to be advocates of what was called the "two-fold truth"; according to which something may be true or false in philosophy which is merely a product of human investigation, while the reverse is true in theology, which has its authoritative source in divine revelation. The philosopher, accordingly, should be free to proclaim his conclusions in philosophy as true in that field; something may be true in philosophy that is not true in theology, and *vice versa*. He of course, as a communicant of the Church, must accept her dogmas as the ultimate authority, but so long as he talks

and writes merely as a philosopher he may declare them to be beyond human comprehension. It is no longer the duty of every philosopher to know how to expound theology. This doctrine of the "twofold truth," when thus baldly stated, was soon condemned by the ecclesiastical authorities as heresy; but philosophers succeeded at times in obtaining a measure of toleration on the ground that they were merely philosophers who could not be compelled to take theology fully into account. Since many of the dogmas of religion were coming to be held as matters of faith incapable of human comprehension and demonstration, philosophers were in reality gradually becoming less confident of them. Philosophy was no longer contented to be the handmaiden of theology; she was longing to become mistress in her own home.

In the third place, the *revival of letters* did much to effect the break with Scholasticism and the beginning of modern philosophy. Dante, Petrarch, and Boccaccio did much to popularize ancient secular literature. The Greek scholars who migrated to Italy during the generation contemporary with the fall of Constantinople in 1453 stimulated the enthusiasm of laymen as well as clergymen for ancient Greek philosophy, together with the other sides of ancient culture. Plato's dialogues were eagerly studied in the original Greek, and found to contain much of intellectual, moral, and aesthetic interest which the monks of the Middle Ages had failed to appreciate. It became clearly worth while to study Greek thought for its own sake, and not merely as a quarry for dogmatic theology. A liberal education could best be gained in that way. A man of the fifteenth century could become more human, more humane (in the sense of more intelligent and cultured and acquainted with all that was worth while in art, literature, and science), through the study of the ancient classics for what the men of the Renaissance believed to be the purpose and point of view of the original authors. Hence the classics came to be known as the "*humanities*," and the scholar who studied them in the new

way as a "*humanist*" in contrast with a "*scholastic*." The road to the enrichment of human life, as well as the understanding of physical nature, lay through ancient Greece.

III. MERITS AND FAULTS OF THE HUMANISTS

The best of the Italians who studied Greek philosophy and literature in the fifteenth century were not simply antiquarians or imitators. They were seeking new experiences. The revival of ancient culture enabled them to break away from the Middle Ages by opening other possibilities, and suggesting departures in directions of which they would not otherwise have thought. The Renaissance was not really a reactionary movement; it was not a return from the Middle Ages to antiquity. It was rather an appropriation of the products of antiquity for new uses. The scholastics of the thirteenth century had taken from ancient philosophy whatever they found it profitable to refashion and make useful in connection with theology. The humanists of the sixteenth century assimilated from ancient culture whatever would widen their own outlook in any direction, and enable them to make a fresh start in the study of the world and man.

The humanists were not infallible. They did not always make wise selections from the learning of earlier times. They appreciated, to be sure, the best in Plato, Aristotle, the Stoics, and the Epicureans. Unfortunately they were also fascinated by Pythagorean number systems, the mystical vagaries of the lesser Neo-Platonists, the magic of the Cabala, and much other philosophical and scientific trash of antiquity and the Arabian and Jewish Middle Ages. They dabbled in magic. They sought the elixir of life that would make an old man young, and the philosopher's stone that would cure all ills. They endeavored to transmute the baser metals into gold. They tried to read their fortunes in the stars. They devised absurd schemes to improve one's memory and reasoning powers. They feared witches, the evil eye, and the powers of

darkness. The Renaissance was unable to break away completely from the superstitions of the past; that was only to be accomplished by the Enlightenment. Yet Renaissance alchemy was one of the sources of modern chemistry; astrology was a forerunner of astronomy; magical practices preceded scientific medicine; attempts at memory systems ultimately led to psychology. Today, the methods of scientific investigation are known and the scientific point of view prevails at least among the intelligent. Then, modern scientific and philosophical methods were still to be devised. Search had to be made in every possible direction for new knowledge by men who had no way to foresee which fields of inquiry would prove productive and what methods should be employed. We are able to smile at the blunders of the men of the Renaissance only because we have inherited the fruits of their labors. If it were not for their pioneer work, we might ourselves now be trying to grope our way out of the Middle Ages.

Many of the philosophers of the Humanistic Period of the Renaissance show flashes of insight that are prophetic of later developments. All made astonishing blunders because they lacked any precise method of thinking. Scholasticism had been an admirable method in many ways; it was noteworthy for accurate definitions of terms, for careful deductions from the premises of an argument in syllogisms, for freely raising objections and reconciling difficulties in logical arguments. The trouble was that it possessed no method for seeking out *new* facts. It could analyze assumptions, but it could not make discoveries.

What men were now most eager to do was to make new discoveries. A few inventions stumbled upon accidentally, no one knew precisely how, had revolutionized life in many ways. The mariner's compass had made possible the discovery of America and the new route to India. Gunpowder had altered modes of warfare; by putting the man of the town more nearly upon a plane of equality with the armored

knight who lived in a castle, it had effected sweeping changes in the political, economic, and social order. The printing press had made books more plentiful and accessible, with the result that the agitation caused by Luther led educated men everywhere to read the Bible and books professing to interpret it. Luther's career, which if it had occurred earlier could only have ended in a brief squabble among the monks, precipitated the Protestant Reformation. So the importance of new research was fully appreciated.

The great difficulty was that the scientists of the sixteenth century had not been able to devise trustworthy methods of investigation. Only in anatomy did these exist. In this field, to be sure, Vesalius had established exact methods of observation and description. Brilliant as were his achievements, they were simply the result of making actual dissections and carefully observing and drawing them, instead of relying upon the statements of Galen and other authorities of earlier times. In fields other than anatomy, where reasoning must supplement observation and description, no reliable tests of proof and probability had been found.

IV. THREE REPRESENTATIVES OF THE PERIOD

We are not concerned with the great literary and artistic humanists of the Renaissance, but with men, who though in other respects less interesting, are more important in the history of modern philosophy. Nicholas of Cusa (1401-1464), a Cardinal of the Church, is surprisingly modern in many ways. For instance, he believes in the motion of the earth and in the boundlessness of the universe. He distinguishes four different stages in knowledge, more in the spirit of Plato or of a modern philosopher than of a scholastic. He almost seems to anticipate Kant when he says that attention and discrimination are present in sense perception, and that time and space are products of the understanding and therefore inferior to the mind that produces them. He sounds Hegelian

when he asserts that what seems to our reason to be opposites really coincide in a higher unity. At times he thinks of God as the creator of a world external to Him in orthodox medieval fashion; at other times he tends to bring God and the world more closely together in a manner anticipatory of Spinoza. When he affirms that each individual thing is infinite in its own way, and mirrors the universe from its own point of view, he is suggestive of Leibniz. He is modern in a practical way, in efforts to reform the clergy, in denunciations of the exploitation of relics, and in discouraging superstitions connected with witchcraft and magic. Along with this, however, he engages in purely medieval discussions about the angels. He employs the devil in a psychological explanation of witchcraft. He has not broken altogether with the superstitions of the age.

The merits and extravagances of the period are strikingly exemplified by Paracelsus (1493–1541). He travelled widely, studied all the authorities, observed carefully, conducted many experiments, and made important discoveries in chemistry and the practice of medicine. His philosophic purposes were practical. He sought to place medicine upon a scientific basis through a right combination of theory and practice, each of which should guide and supplement the other. Believing that there is no limit to what science may attain, he thought that it may succeed in prolonging human life indefinitely. On the other hand, he fantastically sought to show that medicine rests upon three other sciences—natural philosophy, astronomy, and theology; for man belongs to the three worlds of which they treat, and has accordingly an earthly body, an astral spirit, and a divinely given soul. Each of these parts of a man needs its suitable nourishment: respectively food, education, and faith in Christ. God is the source of all things, and since He is three (the Trinity), the original matter from which all has developed contains three principles—sulphur, mercury, and salt (in their original purity, not as we see them now). From these three principles

have proceeded the four elements—earth, air, water, and fire; each of the latter is ruled by its characteristic spirits, the pygmies, sylphs, nymphs, and salamanders respectively. The individual man owes his origin and preservation to his Archæus, or spirit of life. The work of the physician should be to assist this Archæus to resist disease by means of drugs and magic. (Here he was at least right in believing that all the medical practitioner can do is to assist the natural processes of the organism.) Everything on earth corresponds to something in Heaven, and conversely; so everything in man, the microcosm (little world), corresponds to something in the macrocosm (great world, the universe). Man is to be understood through the universe, and the universe through man. All knowledge of the outer world is self-knowledge.

The philosophy of Paracelsus is a strange mixture of Neo-Platonic philosophy, theology, astrology, alchemy, and folk lore, on the one hand; and, on the other, of real scientific discoveries and practical experience. In preaching his philosophy and practising his medicine, Paracelsus was misunderstood by his contemporaries, and long after his time he was wrongly supposed to have been a charlatan. One of his various names was Bombast, and it used to be imagined that our word “bombast,” descriptive as it is of the preposterous claims that he was reputed to have made, owed its origin to him. There is no question now that he honestly sought to base philosophy and medicine upon practical experience and to make them of service to mankind. His personality is plausibly interpreted by Robert Browning in his poem, *Paracelsus*.

Goethe's *Faust* gives a good picture of the confusion in the thought of the times, in which medicine and magic, science and superstition, philosophy and theology were strangely intermingled. Paracelsus made an impression on some of his contemporaries, and exercised considerable influence down to a century after his death. Comenius, one of the most important figures in the early history of modern education,

may have been making a pedagogical application of Paracelsus' doctrine that all knowledge is self-knowledge when he proclaimed the then novel truth that the education of a child must come from within, and not be something externally forced upon him.

Niccolo Machiavelli (1469-1527), in the political writings for which he is most famous, attempted to avoid everything fantastic and visionary. If a twentieth century American reader were to take up his *Prince* accidentally, without knowing anything about the author, he would probably chuckle at the book as a bit of clever and humorous satire. Authors today do not in perfect seriousness dedicate books to political bosses and gangsters, and point out to them the surest ways to success. This, however, is almost what Machiavelli did. He wishes Italy to become united and great. He thought that a prince would be morally justified in seeking to accomplish this by any means whatsoever. This unabashed realism shocked his contemporaries. Machiavelli is important as perhaps the first political philosopher to try to understand politics as it actually goes on. He is therefore sometimes called the founder of modern political science. He represents the Renaissance attitude, conceiving a secular prince as properly concerned wholly with his own interests and those of his state, in contrast with St. Thomas, for instance, who makes the prince ruler of a domain subordinate to the Church of God on earth and in Heaven. Commendable in his attempt at political realism, Machiavelli is superficial in supposing it possible to interpret human conduct without taking into account the human conscience, with its ideals and scruples. While unfortunately these latter never wholly govern political or any other sphere of activity, yet they do exert some influence and ought to exercise more. They certainly cannot be ignored if an adequate picture is to be drawn of human political activities as they actually occur, much less of what it is both desirable and practicable for them to become. So far as modern statesmen like Talleyrand and Bismarck have

promoted the interests of themselves and their countries without being overburdened by moral scruples, they have acted in the spirit of Machiavelli. A careful evaluation of the real services to mankind of such men would furnish a just estimate of the practical merits and limitations of Machiavelli's political philosophy.

V. GIORDANO BRUNO

The greatest philosopher of the sixteenth century was Giordano Bruno (1548–1600). He was a restless spirit, typical of his age. A native of Nola, near Naples, he was caused by his family to enter a monastery in the latter city when he was fourteen. The boy proved utterly unsuited by temperament for the life of a monk. Moreover, he was too independent a thinker to accept uncritically the scholastic teaching of his instructors. Threatened with charges of heresy, he ran away from the monastery at Naples and stayed for a while in Rome. Forced again to flight, he wandered for sixteen years, vainly seeking a place of refuge where he might make a living and write and teach his philosophy undisturbed. At times he was in extreme poverty, and sought to earn his bread by teaching little boys, or by setting type in a printing office. Occasionally he enjoyed brief periods of recognition, and was permitted to lecture at the universities of Toulouse, Paris, Oxford, and Wittenberg. He was received by King Henry III of France and by Queen Elizabeth of England. In every place that he visited his prosperity was short lived. His philosophical views were too radical for his contemporaries. Favored for a short time by the more liberal-minded, the conservatives would soon get the upper hand and Bruno would be forced to depart, either from fear of imprisonment and death, or because he could find no way to make a living and continue his studies. Protestants were likely to be as unfriendly to him as Catholics; for both it was heresy to believe with Bruno that the earth moves about the sun, and

to draw the necessary inferences for philosophy. Religious toleration for so bold a thinker was deemed impossible.

When Bruno's fortunes were low, during a stay at Frankfurt, a young nobleman made him an apparently advantageous offer to come to Venice to teach him philosophy and other learning of the time. It was risky for a runaway monk to return to Italy, but Bruno decided to take the chance. After a few months his pupil wearied of his studies, and betrayed him to the Inquisition. Bruno was confined for two years in Venice, and for six years more in a dungeon in Rome. Bellarmino and other famous Catholic theologians of the time were among his inquisitors. They did their best to persuade him to recant. He was evidently too brilliant a scholar to be put to death, if his services could be recovered for the Church. Bruno himself seems honestly to have believed that his philosophy was not inconsistent with a proper interpretation of Christianity, either in the Catholic or Protestant confessions. He therefore saw nothing in it to recant. Moreover, he accepted in his own way the teachings of the Catholic Church, as a matter of faith. The Holy Inquisition, however, could not countenance the heresies of which they believed him guilty. When they condemned him, Bruno replied, probably rightly, "You who pass judgment upon me, perhaps feel more fear than I, upon whom it is passed." They indeed had more cause to fear the judgment of history on what they had done. Bruno was burned at the stake in 1600, meeting the ordeal with the courage of a martyr.

The relation of philosophy to science in modern times has sometimes been this. Some scientist shows the probable truth of a new point of view, based on empirical observations. He confines his statement rather carefully to a report of the facts which he believes that he has observed. Some philosopher subsequently adopts this new scientific interpretation—perhaps before it has become accepted by scientists generally—and boldly thinks out its implications in a view of the world as a whole and the place in it occupied by man. Such

was the relationship of the philosopher Bruno to the scientist Copernicus.

Copernicus had died in 1543. It is hard for us to realize how revolutionary his astronomy actually was. Both Catholics and Protestants then believed that God had created the heaven and the earth some six thousand years before, and that each had very definite limits in space. The throne on which God sits was located in popular thought at a point perpendicular to Jerusalem and above it. Hell was situated beneath the earth. Angels were constantly descending from the one, and devils ascending from the other, to intervene in human affairs. The earth was stationary, and about it the sun and planets revolved in their crystalline spheres. This modification of the universe of Aristotle and Ptolemy was accepted in the science and theology of the times.

Copernicus dared to intimate that the earth and other planets in our solar system move about the sun, although he left the fixed stars and the throne of God undisturbed. He argued that in this way the motions of the earth and planets can be explained much more simply than by the elaborate systems of epicycles and eccentrics that it was necessary to assume, if the other bodies of our solar system move about the earth as their center. Copernicus distrusted the immediate appearances of things to our senses, and affirmed that, with the aid of reason, it is possible to formulate a logically simpler explanation that will cover the facts, and that this simpler explanation should be assumed to be the truth. He was thus assuming that the processes of nature are simple and not complex. This of course is an assumption; but it has become an essential article in the faith of the modern scientist. No one can demonstrate its truth; but now in the twentieth century, surveying the progress that science has made upon the assumption, we have no doubt of it. We, like Copernicus, believe it to be a real law of nature. So revolutionary did his astronomy appear to Copernicus himself, that he only arranged for the publication of

the book in which it is stated at the end of his life, and died without seeing the proofs. The book was given to the world by one Osiander of Nuremberg, a preacher, who to soften opposition prefaced the volume with an explanation that the novel interpretation should be regarded purely as a speculative hypothesis, or a convenient method of calculation for astronomical purposes, and need not be taken literally. This was, of course, a misinterpretation of Copernicus, who meant his astronomy to be a statement of facts and not a useful but arbitrary fiction. The result was that Copernicanism was not taken very seriously prior to Bruno. Conclusive factual evidence for it was brought forward by Galileo and others only in the seventeenth century.

Bruno, however, accepted the new astronomy with enthusiasm. Furthermore, he saw that the arguments which led Copernicus to believe that the planets in our solar system move about the sun, can be applied to the rest of the universe. Suppose we say with Copernicus that a planet seems to us to move about the sun only because of the position from which we observe it, and that if we were looking at the earth from a point on that planet the earth would appear to us to move about the planet; while in reality the motions of the earth and the planet can be most simply explained by saying that both move about the sun. Now let us go further. Reasoning in the same way, we can realize that the fixed stars only appear to us to be stationary because of their extremely great distance from us. To an observer placed in the proximity of one of them, our sun would appear stationary. In reality every star is a sun, and about many of them planets revolve, as they do about our sun. There are probably countless and innumerable worlds, inhabited by living beings, some of which, it is very likely, are more advanced than we. This can be settled only by prolonged observations carried on in the future. Bruno draws on deductive reasoning and scholastic conceptions to support his arguments. God is infinite, and as the infinite cause of all things,

He must produce, as an effect of His creative activity, an infinite universe; anything less would be niggardly, unworthy of an infinite cause, and inadequate to satisfy His infinite love.

Various scientific and philosophical principles were affirmed by Bruno as consequences of his extension of the Copernican view. Our knowledge begins with sense perception. Yet sense is relative to the position of the observer and must be corrected by reasoning. There is nothing that is absolutely "over" or "under" in the world of constantly revolving suns and planets with no fixed center or circumference. Motion is relative to the point of view of the observer; there is no absolute motion. There is no absolute measure of space and time. As opposed to Aristotle, there is nothing absolutely "heavy" or "light"; the elements have no fixed natural places in the universe determined by their absolute weights, for weight is relative. Natural laws and processes are everywhere the same; the heavenly bodies are constituted in the same way as the earth; to this extent Bruno has the idea of uniformity of nature, in opposition to the science of his time, which supposed the heavens to consist of a superior kind of matter governed by different laws. At a time before the principles of inertia, gravitation, and the conservation of mass and energy had been precisely formulated, Bruno was already envisaging modern views of the physical universe. The imagination of the philosopher forecasted the future progress of science. This has occurred frequently in modern times.

Bruno saw that the new view of the world called for a new conception of God. The latter could no longer be believed to sit upon a throne at a definite point in space outside of the heaven and the earth which He had created only six thousand years before. Bruno seems to have wavered between *three* different interpretations. One of these interpretations is *Neo-Platonic*; the world is an emanation from the Deity on which it is dependent, just as light was thought

by Plotinus to emanate from the sun without affecting or in any way diminishing the power of the sun. Here Bruno offers a substitute for the ordinary Christian view of creation.

According to the *second* of Bruno's interpretations, the Deity is at once *the efficient cause* of the world and its *inward essential principle*. As efficient cause, God is distinct from what He creates, just as a sculptor from the statue which he has produced. Of God as efficient cause, we can know very little. But of God as an inward principle within us and so accessible to our experience, we can know more. In this latter sense God is the underlying reality, the infinite substance of the world, at the same time both material and spiritual. Matter is therefore spiritual,—*cosa divina*, something divine. God as immanent principle may be thought of as an inner artificer who shapes and forms material from within; just as from inside a seed, an immanent, vital principle causes the various parts of the future plant to unfold. A voice that can be heard at all points in a room is present in its entirety everywhere in the room; so God in His entirety is present at all places in the universe. Bruno knew that these analogies were imperfect. He was doing his best to make intelligible a conception of God as immanent in the world and yet transcendent to it, that would accord with what is essential in religion as well as with the Copernican astronomy. This conception of God as infinite substance Spinoza further developed in the seventeenth century, as we shall see. We now call such a view *monistic*, since it insists upon unity, and *pantheistic*, since it identifies God with the universe as a whole.

The chief obstacle in every monistic system in the history of philosophy has been the failure to reconcile the great diversity of individual objects which the world presents to our observation with their underlying unity. How prove that all things at bottom are really one? And how from their essential unity explain the way in which this great differentiation arises? In other words, how reduce the many to

the one, and how derive the many from the one? How meet this double difficulty?

Perhaps it was the endeavor to solve this problem that led Bruno at times to advance a *third* interpretation, a type of what is now called *pluralism*, which insists that the world is full of quite a number of things which cannot be reduced to any one of them. According to Bruno's version of pluralism, the world consists of an infinite number of ultimate individual units or "monads" which are at once spiritual and material in their nature. He occasionally calls some of them "atoms," especially when discussing their physical aspects, or "minima," particularly with reference to mathematical considerations. Each of these units has its own distinctive characteristics and its unique worth; it cannot be resolved into any other. Each of us is such a unit or *monad*. So is every other living thing. And everything is in some sense alive or capable of becoming so; or at least this is true of the ultimately simple parts of which it is composed. The absolutely small minima, as well as our own souls and God, are immortal. Bruno seems to be trying to reconcile his pluralism with his pantheism when he introduced his notion of *relativity* into the discussion, and says that each minimum is included within larger units without losing its own distinctive identity, while all are included within God. In some respects Bruno's pluralism and his treatment of monads are anticipatory of Leibniz.

The history of modern philosophy since Bruno has shown that each of these three ways of regarding God in relation to the world has interesting possibilities, especially the latter two. All are compatible with the Copernican astronomy. All three, however, cannot be equally true. God cannot at the same time be (1) an inexhaustible source from which a universe separate from Him proceeds: (2) the universal substance of which everything consists; and (3) a monad from which all the others are distinct and yet within which they are all included, and on which they all depend. There are

too many contradictions here. Bruno did not succeed in developing a view of God in relation to the world that would serve as a satisfactory substitute for the medieval interpretations. Yet Bruno at any rate, in his incoherent and contradictory way, glimpsed some of the solutions which have been proposed in subsequent centuries. And on one point at least he made a lasting contribution to the philosophy of religion when he showed that we can no longer think of God as located at a particular point in space. God, to the modern man who continues to believe in Him, is everywhere, or transcends space in some way, and He reveals Himself to a man even more intimately in his inner experiences than in outward events. Although probably not a particularly devout man himself, Bruno did much to bring God down from heaven to earth and make Him live in the experiences of men.

Bruno's attitude toward the religion of his time seems to be anticipatory of that of most subsequent philosophers. His conceptions of God and other matters of religion are of course in his own opinion true; but he realizes that they are too difficult for wide popular acceptance. The various churches, Catholic and Protestant, and perhaps other religions as well, adapt ultimate truth to the needs of the common people. The philosopher should respect them all tolerantly, and he may, if he chooses, identify himself with the one with which he finds himself most in sympathy. But he ought not to be expected to accept any creed literally. At least Bruno's attitude during his long trial before the Inquisition can be plausibly explained in this way. Such indeed has been the position of most great philosophers since Bruno. Nearly all have entertained religious convictions of some kind or other, while comparatively few have been orthodox defenders of the details in the creed of any particular church.

Bruno did not develop a system of ethics. However, in his so-called "ethical treatises" he prophesies for a man a wider and fuller life in every way—aesthetically, morally, reli-

giously, rationally—when he shall have broken away from ignorance, sloth, and superstition, and become enlightened by the Copernican view of the world and the Brunonian philosophy.

Bruno's *Spaccio della Bestia Trionfante* (Expulsion of the Triumphant Beast) does not refer to the Pope, as Bruno's inquisitors seem to have fancied, but to the need on the part of each of us to expel the bestial from his nature, and to make truth and other virtues triumphant in his character and conduct. The golden age, in which men once enjoyed complete leisure, was morally inferior to our own era of effort and progress. The argument takes the form of an allegory in which Zeus (the soul of every man) reforms Heaven (his inner life). *De gl' Heroici Furori* (a book which has been translated into English under the title *The Heroic Enthusiasts*) shows that a man must not give up striving merely because no victory over self can be won without effort and pain. Moral progress is an unending struggle in the direction of an infinite goal, and in this advance we find our happiness. The sonnets and dialogues, though evidently composed hastily, exhibit poetical ability, and are not without literary merit. In depicting the struggles within the human soul they are somewhat reminiscent of Plato, especially perhaps of the *Phaedrus* and *Banquet*. They show a little comprehension of the psychology of sublimation, and the need to re-educate the emotions in order to render them harmonious in a well ordered personality.

In the thought of the moral life as a progress toward an infinite goal, Bruno seems in a way to anticipate the German idealistic and romantic philosophers and poets of the nineteenth century as well as Carlyle and Emerson. Although in his ethical writings Bruno expresses himself imaginatively and poetically rather than in carefully reasoned arguments, he is seeking to establish morality on a modern scientific basis. He has broken away completely from scholastic ethics with its theological associations.

So great was the prestige and power of the Inquisition and so bitter were religious people of all confessions against Copernicanism, that Bruno had hardly a friend when he died. His publications were placed upon the Index; copies were destroyed whenever they came into the hands of the authorities, and became very rare. So it is impossible to determine in most cases whether the great philosophers of the seventeenth century, when they develop conceptions which Bruno had earlier but less clearly glimpsed, had actually read Bruno and were consciously his debtors. At any rate, Bruno's germinal ideas to some extent took root in the thought of Europe. The nineteenth century rediscovered the importance of Bruno as a philosopher. New editions of his works were published and commentaries written upon them. The Italians became proud of him as the first great philosopher of modern times. In 1889 a statue in his honor was erected in Rome at the spot on the Campo dei Fiori where he died.

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DIVISION B

The Natural Science Period

CHAPTER III

FRANCIS BACON

I. INTRODUCTORY

The Natural Science period of the Renaissance, as was indicated in Chapter I, is commonly dated from 1600 to 1690. In this period the Counter Reformation checked the freedom of thought in Italy, and religious wars and controversies discouraged philosophical work in Germany. In England, Holland, and France conditions were more favorable, and brilliant achievements were made.

The *first* great achievement was the formation of *new methods* for philosophical investigation. We have seen that one serious shortcoming of the Humanistic period was the want of a proper method. Such a method, on the negative side, ought to guard the philosopher from making unwarranted assumptions either as a result of uncritically taking for granted what had been accepted in the past, or from making hasty guesses on his own part. On the positive side, it should be as logical as scholasticism, and yet productive of new discoveries in the fields of inquiry in which men were now interested. In the period which we are now to review, we shall find Bacon and Descartes each advancing a new method which has been fruitful in the subsequent development of philosophy. Bacon, indeed, as a philosopher accomplished little more than to advance such a method, to proclaim in an eloquent manner the spirit which it expressed, and to make both method and spirit widely understood and appreciated.

A *second* form of achievement was effected by Hobbes, Descartes, Spinoza, and Leibniz, who through their methods

were able to erect *systems* which have their influence to this day. Each of these systems is different from the others, but all have value.

In their methods, Bacon, and to a less extent Hobbes, partly because they were Englishmen with the British love for practical experimentation, were *Empiricists*, that is, philosophers who believe that the primary source of all knowledge is the experience of the senses, and that generalizations from sense data should be derived inductively from observation and experiment. The other philosophers mentioned, partly because they were natives of continental Europe, and more because they were impressed by the contemporary advances in mathematics and physics, to which they all personally contributed, were *Rationalists*, and believed that *reason* is a more important source of knowledge than sense experience and that philosophers should think somewhat like mathematicians. Both rationalists and empiricists were broad-minded enough to realize that creative work in philosophy required the coöperation of both reason and the senses, and the difference in emphasis between them should neither be exaggerated nor minimized. The period began with the empiricism of Bacon, and reached its most brilliant attainments by means of the rationalism of Descartes, Spinoza, and Leibniz.

II. PERSONALITY OF BACON

Francis Bacon (1561–1626) in point of time slightly precedes the other important philosophers of this period. Pope's characterization, "the wisest, brightest, meanest of mankind," is not unjust to Bacon in his political career. He was wise and bright. He recommended to the government of England farsighted policies that would have promoted the public good if they had been adopted. However, in order to advance in favor, he helped to carry out whatever courses his superiors decided upon, no matter how bad they happened to be.

In order to climb higher into the favor of Queen Elizabeth, he took an unnecessarily active part in the prosecution of Essex, who, though guilty of folly and treason against which Bacon had cautioned him, had after all been Bacon's best friend, and done most to further his advancement. That certainly was mean.

Under James I, Bacon became Lord Chancellor. In this office he accepted gifts from those whose suits he decided in his judicial capacity, although with few and perhaps no exceptions he rendered his judgments honestly and in accordance with the law. Everyone had accepted such gifts for generations. What was a judgeship for? He could not otherwise have lived in the luxury of a man in his high office. The conduct of James I and that of his favorite, the Duke of Buckingham, were far more reprehensible. Bacon was very likely the most honest man in the corrupt court of the king. But somebody had to act as scapegoat, suffer the indignation of the House of Commons, and divert attention from James and his favorite. So Bacon meekly served in this capacity, hardly making any pretense of defending himself against the charges brought against him. The king did something to soften Bacon's punishment, but the latter was forced to retire permanently from public life. He spent his remaining five years in fruitful historical, scientific, and philosophical studies, although his two most important books in philosophy had been written previously. His death was the consequence of a cold caught while investigating the possibility of preserving meat by refrigeration.

The attractive side of Bacon's personality is his wholehearted enthusiasm for science and philosophy. Far more clearly than any of his predecessors or contemporaries he saw the prospect of indefinite human progress guided by scientific discoveries. Although his political activities left him no time to make such discoveries himself, he taught the world to appreciate the importance of research and in part the methods by which it should be carried on. His two

most important philosophical writings are respectively concerned with the advantages that will come from the *Advancement of Learning* (1605), and the proper methods of investigation by means of his new inductive logic (the *Novum Organum*, 1620). He tried to induce the British government to endow institutions for research. Though unsuccessful in this, the foundation of the Royal Society in 1662, "which was to become the greatest association of scientists in the world," owed its inspiration to Bacon. Diderot, in the prospectus of the famous French *Encyclopaedia* of the following century, acknowledged the indebtedness of its authors to him. If Bacon were to return to earth in our time he would not be surprised at the developments in pure science, the progress in mechanical inventions, and the changes effected by the industrial revolution. He credited the inhabitants of his imaginary *New Atlantis* with institutions for organized research which had led to the invention of flying machines, submarine vessels, telephones, microphones, synthetic foods, and the artificial production of new metals, plants, and animals useful to man. On the other hand, he would be disappointed that, contrary to his expectations, equal advances have not been made in the social sciences, with corresponding improvement in associated life.

Bacon's fame in English literature is chiefly due to his semi-popular *Essays*, which are noteworthy for vigorous style, pithy and often wise comments on men and conduct, and happy employment of analogies, similes, and metaphors. Many of his sayings have become commonplace in our language; children are told to write in their copy books that "man is the servant and interpreter of nature" and "knowledge is power," without their teachers always remembering that these maxims originated with Bacon. His more technical philosophical works, originally written in Latin, contain striking sentences in which great insight is pressed into a few words. In this sense Bacon is a master in condensation. On the other hand, he keeps repeating much the same idea

in numberless ways, and the movement of his thought on the whole is likely to be tedious. Probably the best way for the beginner to read him is in carefully chosen selections which deserve, as Bacon would say, to be thoroughly "chewed and digested."

III. THE IDOLS

Bacon, as an empiricist, believed that human knowledge begins with sense experience and can be enlarged by careful observations and experiments. From these, inferences must be made slowly and carefully; it will not do to leap from a few facts to some sweeping generalization. Nothing must be left out of account. That the century following Bruno and Paracelsus should begin with a man insisting on painstaking observations and great caution in drawing conclusions, shows a healthy advance. Philosophy could neither return to the dogmatism of the Middle Ages, nor remain contented with the immature speculations of the Humanistic period. Bacon saw that philosophy must build on solid foundations, such as only natural science can afford, and that logic should point the way by which scientists can make discoveries and furnish philosophy with material for interpretation.

Coming at such a time, Bacon is concerned with pointing out the errors of the past, and insisting that it is necessary to start out afresh in an entirely new way. As always happens in the case of men who do this, he is at times too severe in judgment of his predecessors, in his case the great philosophers of antiquity and of the Middle Ages. At other times he unconsciously retains too much of bygone points of view that he should have discarded.

The negative side of Bacon's work, his rejection of the errors of the past and explanation of the sources from which they arrive, is found in his famous discussion of the "idols" in the first book of the *Novum Organum*.

He distinguishes four classes of idols, or phantasms, which beset men's minds and hinder their pursuit of truth. First

of these are the Idols of the Tribe, common to the whole human race and inherent in the very nature of mankind. Among these is the disposition to assume more order and regularity in the world than is actually found, so that scientists have thought that celestial bodies move in perfect circles, and that the ratio of density of the so-called elements is ten to one. Again, once an opinion has been adopted, only confirmatory evidence is likely to be noted, while contradictory evidence is neglected. This explains man's belief in omens, dreams, astrology, and other superstitions. In general, instances affirmative of any opinion are more often noticed than negative instances; although of course both should be given equal weight. Things "which strike and enter the mind simultaneously and so fill the imagination" move men powerfully, so that they jump at the conclusion that all other things must be similar [what is now called the fallacy of hasty generalization]. "The human understanding is no dry light," but is clouded by emotions and desires; so that men readily believe what they wish; they are impatient of research; they regret sober facts that belie their hopes, and the light of experience when it contradicts their arrogance and pride. Above all, the human understanding is hindered by "the dullness, incompetency and deception of the senses," so that what can be directly seen outweighs unseen principles deduced from reasoning based on experiments.

Secondly, there are the Idols of the Cave, the peculiar limitations of each individual man. For each of us lives in a little cave or den of his own, and has his idiosyncrasies, due to heredity, education, habits, and circumstances. So some men habitually exaggerate resemblances and others differences; some unduly love antiquity and respect precedents, while others are captured by novelties of every kind.

Thirdly, and most troublesome of all, there are the Idols of the Market Place, where men come together and converse in language. For words have their origin in the intelligence of ordinary man, and are often unsuited for accurate

scientific discourse. The result is that men dispute about words which they are unable to define properly. Some words are inheritances from confused opinions of the past, and can be avoided by rejection of the theories that gave rise to them, such as Fortune, the Prime Mover, and the Element of Fire. Other words are so deeply rooted in human usage that it is difficult to avoid them; for example, such a word as "humid" is "nothing else than a mark loosely applied to a variety of actions which cannot be reduced to any common meaning." Our speech is full of such words, which lead to endless confusion.

Lastly, the Idols of the Theatre "have immigrated into men's minds from the various dogmas of philosophies, and also from wrong laws of demonstration." All systems received in Bacon's day were in his opinion only "so many stage plays representing worlds of [men's] own creation after an unreal and scenic fashion." Under this head he condemns Aristotle, as a representative of the Rationalists, for attempting to fashion the world out of categories of his own devising without previously going to nature and observing actual facts; Aristotle first defined his conclusions and only afterwards resorted to experiments to confirm what he had already decided in advance. Even worse, Bacon says, have been the Empiricists before himself, who lacked his method and generalized from too few experiments, allowing their imaginations to run away with them. Such were the alchemists, and Gilbert, who tried to derive an entire philosophy from his experiments with the magnet. Worst of all, however, have been those philosophers who have been corrupted either by superstitions or by admixtures of theology. Bacon himself accepts the ordinary views of orthodox Anglican churchmen of his time in *A Confession of Faith*, the sincerity of which there seems to be no reason to doubt. The articles of religion, however, owe their origin to revelation, and are not necessarily the concern of philosophy. Some religious doctrines, such as the existence of God, he thought can be

proved by human reasoning, and so come within the domain of natural theology. What he strongly opposes is the attempt to base anything scientific or philosophical upon a literal application of the affirmations of revealed religion. To found a system of natural philosophy on the first chapters of Genesis or the book of Job, he says, is "seeking for the dead among the living." Like Bruno, Bacon was trying to free science and philosophy from dogmatic theology. Today we no longer expect a physicist or a biologist to introduce his religious convictions into his purely scientific studies, much less to feel bound to interpret nature so as to make it conform to the creeds. To us this has become so commonplace that it is hard to realize how much courage it took to affirm such a position in the early seventeenth century.

When we review Bacon's four types of "idols," we perceive that he has rightly pointed out four different sources of error which must be avoided in our thinking. However, we are at first dismayed when we reflect that these are also our chief sources of knowledge. We can observe only by using the mental resources common to mankind, or else by availing ourselves of any unusual talents that we may be fortunate enough to possess as individuals. We cannot reason, except in the very abstract fields of mathematics and symbolic logic, without employing words; and the philosopher, if he is to be understood at all, must ordinarily employ words in common usage, and not devise a jargon of his own. No modern man can afford to reject all that philosophy has achieved in the past and try to make an absolutely fresh start, as in ancient times Thales did in natural philosophy and Socrates in social philosophy. We are obliged to draw upon all four sources which, when misused, give rise to the "idols." If Bacon had stopped here, he would indeed have given us a salutary warning against the main causes of error, but he would have done little else to set us on the right track in the search for truth. But Bacon did more than this. He propounded a new method, his own version of induction.

IV. INDUCTION

Bacon conceived his *Novum Organum* (New Organon) as a work on inductive logic which would replace the old *Organon* of Aristotle, with its reliance on the deductive methods of the syllogism. Bacon knew that he had not entirely succeeded in outlining a perfect method, but he hoped that he had indicated the right direction which the reform of logic should follow. Objects as we directly see them about us are too complex without analysis into the *simple natures* of which they are composed. The *latent processes*, by which things change, can be understood only after the simple natures themselves have been comprehended. Examples of simple natures are heat, cold, density, gravity, colors, sounds, odors, and whatever other qualities objects immediately manifest to our senses. As latent processes, Bacon mentions the ways in which plants grow from their seeds, the embryology of animals, and the generation of gold and other metals; probably he had in mind all of the processes by which changes take place in nature which cannot be observed directly. Had Bacon known of the laws of inertia, gravitation, and the conservation of energy in physics, the evolution of elements in chemistry, and natural selection in biology, he would have called them "latent processes."

In order to understand any simple nature, we must discover its *form*. In referring to the "forms of simple natures," Bacon at times does not break away from scholasticism; the form is somewhat like an Aristotelian "formal cause," or a formal definition of what anything is,—something static and substantial. In other passages, his thought seems thoroughly modern: the form is a law, a description of a process as it actually occurs. On the whole, however, he made no valuable contribution by his treatment of forms and simple natures; such conceptions are too medieval for modern science. He was, however, more successful in setting forth the *inductive method* by which these forms are to be discovered.

The discussion of the inductive method in the second book of the *Novum Organum*, where he uses heat as an illustration, is the most valuable passage in Bacon's philosophical writings. He makes a table of all the instances with which he has become acquainted, either by simple observation, by experiment, or by reading, in which heat is present in objects of any kind or description. (In doing this, he anticipates what John Stuart Mill in the nineteenth century taught the world to call the Method of Agreement; all instances in which a phenomenon occurs agree in only one circumstance, which, when found, we call its cause. This of course is an abridgment of Mill's formula, and omits qualifications.) Bacon next makes a table of "negative instances," of cases as closely similar as possible in all respects to each item of the first table, except for the absence of heat. Any quality present in this second table which is also present in the first cannot be the form of heat. Only a character that is always present when heat is present and absent when heat is absent can be the form of heat. (This is a fairly accurate anticipation of Mill's Method of Difference.)

In a third table he compares cases in which the amount of heat changes, to see if there is any other circumstance that varies either directly or inversely with the amount of heat. (This is Mill's Method of Concomitant Variations.) Having painstakingly compared the three tables with one another, Bacon arrives at what he calls the "First Vintage" of the form of heat. He finds that heat is a kind of motion. For all cases in which heat is present have only the one common circumstance of motion; all cases in which heat is wanting differ from these only in the absence of motion; the amount of heat present in every case is proportionate to the amount of motion.

Bacon made no new discovery regarding the nature of heat. Like Mill after him, he merely formulated the methods actually employed by the scientists of his time, drawing illustrations from their discoveries. But, like Mill, he really made

a valuable contribution in stating precisely the logical methods that scientists were employing in their investigations. Since Bacon the world has better understood the proper methods of empirical observation. Man cannot impose laws upon nature. He cannot reason out in advance of experience what the laws of nature must be. He must go directly to nature, patiently observe, make experiments, and draw his conclusions from them. Bacon proclaimed the liberation of modern thought from blind acceptance of the authorities of the past on the one hand, and from uncontrolled imaginative speculation on the other. It is more accurate to say that he proclaimed this liberation than that he himself actually effected it. Kepler, Galileo, and the other scientists of the time had already effected it, so far as their own work was concerned. Bacon deserves the credit for more clearly stating the spirit of scientific method than anyone else in his generation, and for doing more to make it generally known and appreciated.

Bacon kept insisting that the only way to make progress in science is by the painful process of assembling observations according to the methods of his tables. He continually warns us against the danger of making inferences at any time that go beyond the evidence thus gathered. In this he was partly wrong. Scientists have often made bold use of their imaginations in the formation of hypotheses. Once an hypothesis has thus been advanced, deductions have been drawn that necessarily follow if the hypothesis be true; only after this has been done has the truth or falsity of these deductions been established by the use of methods more or less Baconian. By preliminary use of hypotheses, advances have been made more rapidly than could have been done had scientists been afraid to use their imaginations. At the same time, the mistake of accepting hypotheses as true without testing them carefully, and taking contrary experience into account, has been avoided. Galileo worked out deductively his hypothesis regarding the laws of velocity, making large

use of mathematics; this done, he established its truth by measuring the rate at which bodies actually fall, when he rolled them down an inclined plane which he built at the leaning tower of Pisa. The rapid advances, especially in physics, the oldest and most successful modern science, have largely been the result of first imagining tentative hypotheses, making mathematical deductions from them, and confirming their truth by actual experiment. Bacon did not fully understand the methods that Galileo and other scientists were actually employing in his time.

Hobbes, and still more Descartes, understood these methods better, and the latter, as we shall see, found the clue to philosophical method in mathematics. Bacon, then, is one-sided in his exclusive reliance on empirical observation by means of comparative tables and in his neglect of mathematical deduction. He is right in what he has affirmed and wrong in what he has overlooked or denied.

Bacon was not a metaphysician on a grand scale. His insistence on limiting thought to the products of close observation of facts made this impossible. He would, however, be classified as a *realist* in the twentieth century (not the medieval) use of the term, and not as an idealist, a skeptic, or a pragmatist. Like our realists today, he has no doubt that an external world exists independent of our senses and our reason. Like them, too, he believes that we can gain correct information about the nature of this world. To be sure, Bacon insists that our senses deceive us if we take immediate perceptions at their face value. But, he adds, if we compare our perceptions carefully with one another, we can first know the forms of the simple natures of which everything is composed. These known, we shall be able to modify the simple natures of things in ways useful to us, through applied science. We shall also be able to discover the latent processes in nature and to some extent to control them, as in plant and animal breeding and in the manufacture of artificial metals. There is almost no limit to the knowledge of nature that

may be gained. Bacon has nothing in common with modern *idealism*, because he neither believes that the external world is necessarily mental in its constitution, nor dependent on minds, nor fundamentally purposive or teleological in its organization. Bacon obviously is not a scientific *skeptic*, because he believes in the unlimited possibility of advance in knowledge. He is not a religious skeptic, because he believes that the existence of God can be established philosophically, and that the articles of revealed religion should be accepted on faith in the authority of the Bible and the Church. He is not a *pragmatist*, because he believes that reality exists independent of anything that we think about it, and is unaffected by what we know of it; we must study nature as it is in order to control it; truth is in no sense of our wishing or willing. While Bacon had no thought of our twentieth century philosophical schools, it is easy to classify him with reference to them. He is a realist, although of a comparatively simple type.

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CHAPTER IV

HOBBS

I. LIFE

Thomas Hobbes (1588–1679) is the most important British philosopher between Bacon and Locke. His picture in the National Portrait Gallery at London is probably the most impressive of any modern philosopher. Such is the judgment of Leslie Stephen, who remarks: "Hobbes might have sat for a portrait of Plato, and is, I think, the best looking philosopher known to me."¹ Hobbes' personal friend and biographer, John Aubrey, says that he had a large forehead and "a good eie, and that of a hazell colour, which was full of life and spirit, even to the last. When he was earnest in discourse there shone (as it were) a bright live-coale within it."² Hobbes owed little to his father, vicar of Westport, near Malmesbury, "one of the ignorant 'Sir Johns' of queen Elizabeth's time, who could only read the prayers of the church and the homilies; and disesteemed learning—as not knowing the sweetness of it."³ This father, once after playing cards all night, went to sleep in church the following morning, presumably while the clerk was reading, and shocked the congregation by loudly exclaiming in his dreams "Clubs is trumps!" Later the choleric vicar was provoked by a scheming parson to strike him at the church door, and so was forced to disappear permanently from those parts, to the profit of the parson who succeeded him to the living.⁴

Of Thomas Hobbes' mother little is known, except that she was so frightened in 1588 at the report that the Spanish Armada might land in the vicinity, that Thomas was prematurely born. To this circumstance in after years he attributed

his constitutional timidity. An uncle on his father's side, a successful man of business, provided for the unfortunate family after the disappearance of the father, saw that Thomas Hobbes received an excellent schooling, and paid his expenses while a student at Oxford. After completing his university studies, Hobbes entered into the employ of William Cavendish, who later became the first Earl of Devonshire. He served the Cavendish family for three generations, tutoring the sons and assisting in business and other matters. His occupations afforded him considerable leisure time which he spent in the well-equipped family library. He was always much interested in the classics; he turned the *Medea* of Euripides into Latin iambics while a boy of fourteen; as a young man he translated Thucydides, and in the last years of his life, the *Iliad* and the *Odyssey*. While none of his translations have remarkable merit, work upon them probably did much to give him his masterly style; for with the possible exceptions of Berkeley and Bacon, the English of Hobbes is the best that has ever been written by a philosopher.

His connections with the Cavendish family did not prevent him from serving at times as a secretary to Bacon during the closing years of the latter's life; this contact must have made an impression upon the young Hobbes, although for the time his interests continued to be literary rather than scientific or philosophical. For so brilliant a man, Hobbes' formative period was long in duration. Two accidental events did much to awaken his interest in philosophical questions, and to determine the direction of his progress in their study. Aubrey tells us that "He was forty years old before he looked on geometry, which happened accidentally. Being in a gentleman's library, Euclid's *Elements* lay open and 'twas the 47 *El. libri I*. He reads the proposition. 'By G—' said he 'this is impossible.' So he reads the demonstration of it, which referred him back to such a proposition—that to another—and at last he was demonstratively convinced of that truth.

This made him in love with geometry.”⁵ He came to the conclusion that all reasoning is mathematical in character. In after years he wrote frequently on mathematical subjects, sometimes showing keen insight but often jumping at conclusions, claiming, for instance, that he had succeeded in squaring the circle, and becoming involved in controversies in which he was badly worsted.

On another occasion, of uncertain date, while at a gathering of learned men, someone mentioned the word “sensation.” It developed that no one understood the nature of sensations. Hobbes was impressed with the importance of the problem. He reflected that if all things were at rest, or all moved alike, nothing would differ from anything else and there could be no sensations. The causes of all things must be referred back to movements. All philosophy should be concerned with the relations between causes and effects. This led him again to geometry, and also to physics, and made him a materialist.

When Charles I was forced to summon the short Parliament in 1640, Hobbes prepared a brief political treatise, which was circulated in manuscript among his friends. In this he maintained that sovereignty is one and indivisible, and implies the right to make war and peace and levy taxes. Although containing no explicit reference to current events, this was really a defense of Charles I against Parliament, since in England all still agreed that the king was sovereign. Hobbes became badly frightened, and fearing arrest by Parliament, as he afterwards confessed, “went over into France, the first of all that fled.” He remained abroad until 1651. During this period of voluntary exile, mostly spent in Paris, he saw much of the noted philosophers of the Continent—Mersenne, Gassendi, and others, including Descartes, although he disagreed with the last too much to be regarded by him with much favor. For a while Hobbes was one of the tutors of the future Charles II, then living in exile. At this time Hobbes wrote his greatest book, the *Leviathan*,

in this manner: "He walked much and contemplated, and he had in the head of his staffe a pen and ink-horne, carried alwayes a note-booke in his pocket, and as soon as a thought darted, he presently entred it into his booke, or otherwise he might perhaps have lost it. He had drawne the designe of the booke into chapters, etc., so he knew whereabout it would come in. Thus that booke was made." ⁶ (An excellent way to write a book!)

The *Leviathan* justified the Loyalists who had already done the best that they could in the defense of the king, for compounding with the victorious Puritans and saving their lives and fortunes. The Cavendish family, as well as many others, had made peace with the Commonwealth in this manner. Hobbes naturally sympathized with them. Hobbes, too, was probably homesick and wished to return to England. The Stuart sympathizers were at first indignant at the book. "His majestie was displeased with him (at Paris) for awhile, but not very long, by means of some's complayning of and misconstruing his writings. But his majestie had a good opinion of him, and sayd openly that he thought Mr. Hobbes never meant him hurt." ⁷

As a matter of fact, Hobbes seems to have been in the position of an extremely original and independent thinker who was at the same time timid. His political philosophy was intended to be of universal validity. It favored absolute monarchy, but did so on naturalistic grounds and not as a matter of divine institution as the Stuarts claimed. However, he seems to have thought that a deposed and impotent monarch has no further claim upon subjects who have in vain done all that they could to effect his restoration. Such a view although in many respects sensible, suited none of the extreme partisans on either side. The *Leviathan* presents a fairly consistent political philosophy; it is not written primarily to appeal to any faction. Hobbes was not a mere political opportunist. He was too independent to play that role. However, the publication of the book at the time made

it possible for him to return to the England of Oliver Cromwell, and yet to remain a friend of Charles II.

On news of the restoration of Charles II, Hobbes, at the advice of Aubrey, found it prudent to go from one of the country seats of the Cavendish family, where he had been staying, to their residence in London. "It happened, about two or three dayes after his majestie's happy returne, that as he was passing in his coach through the Strand, Mr. Hobbes was standing at Little Salisbury-house gate (where his lord [Cavendish] then lived). The king espied him, putt of his hatt very kindly to him, and asked him how he did." ⁸ Hobbes was received at court. "The witts at Court were wont to bayte him. But he feared none of them, and would make his part good. The king would call him *the beare*, [and say] 'Here comes the beare to be bayted!' " ⁹ Hobbes received a pension from Charles II, which was paid with more or less regularity. He continued to live with the Cavendish family, and busied himself writing on various subjects until almost the end of his long life.

For the age in which he lived, Hobbes was temperate in his habits. "I have heard him say that he did believe he haz been drunke in his life a hundred times; which, considering his great age did not amount to [much] above once a yeare—he never was nor could not endure to be, habitually a good fellow, *i.e.*, to drinke every day wine with company, which, though not to drunkenesse, spoiles the braine." ¹⁰ He seems to have been a total abstainer for the last thirty years of his life. He thought it more important to assimilate what he read than to read extensively. "He had read much, if one considers his long life; but his contemplation was much more than his reading. He was wont to say that if he had read as much as other men, he would have knowne no more than other men." ¹¹ It might be well if young philosophers of our own time would follow the example of Hobbes, read less, and spend more time in reflection.

II. MATERIALISM

Hobbes is the first, and perhaps the greatest, philosophical *materialist* in modern times. According to him, *whatever exists is matter, and whatever changes is motion*. In this he starts from the standpoint of Copernicus, Galileo, Harvey, and the other founders of modern physical science and develops its implications as he sees them. Philosophy he defines as "a knowledge of effects from their causes and of causes from their effects." The former process is deductive and certain; it starts out with definitions that are self-evident. The latter is inductive and hypothetical and affords probability, since we can never be sure that an effect might not be produced by other causes than those we think we have discovered. Since every effect must have a cause, and the latter must have a preceding cause, we are inevitably led to assume a first cause of everything—God. However, philosophical reasoning can tell us very little about God. For information on such subjects we must turn away from philosophy to theology and revealed religion, which we should accept on the authority of the state; this lies outside of the province of philosophy. For philosophy the first principle, the ultimate basis of everything, is matter and motion. Hobbes develops the further principles of his materialism deductively.

Hobbes himself was not a natural scientist. He merely appropriated, not always very accurately, the conceptions at which the great physicists had arrived, and when he occasionally attempted to make contributions to mathematics he was not very successful. His importance as a metaphysician lies in his attempt to build up a view of the world as a whole—a systematic philosophy—on this basis of matter and motion. For Hobbes, the ultimate reality is matter in motion; matter is the primary substance whose motions are the fundamental basis of everything. Human mental processes are motions in our brains, hearts and other organs. The state and other associations of men are combinations of motions.

Every event in the universe, if it could be understood, would be reducible to motions.

Thus far Hobbes' philosophy is deductive, based on mathematics and physics. In this respect it shows a sharp contrast to Bacon and a better understanding of what the great scientists of the time were doing. When, however, Hobbes passes to the study of man, he becomes more of an empiricist.

III. PSYCHOLOGY OF COGNITION AND VOLITION

The source of all human knowledge is in *sensations*, for, as Hobbes tells us, "there is no conception in a man's mind which hath not at first, totally or by parts, been begotten upon the organs of sense. The rest are derived from that original."¹² The cause of any sensation is the pressure of some external object upon an organ of sense, either *immediately*, as in taste and touch, or *mediately*, as in seeing, hearing, and smelling. This pressure on the sense organs starts a movement to the brain or heart, and one of the latter responds with a color, sound, odor, or sensation of heat, cold, harshness, or the like. So (as we would say) a sensation is the product of the brain resulting from a stimulation from outside the human body. Hobbes anticipated by nearly three centuries the views of our contemporary behaviorists in psychology, who attempt to reduce all mental processes to responses to stimuli.

On such a view, of course, there is no reason why a sensation should *resemble* the external object that "presses" (to use Hobbes' word) the sense organ. Indeed, Hobbes does not believe that they are necessarily similar. Since all that really exists in the external world is matter, and all that changes is motion, *matter has in reality only the qualities that physics attributes to it*. If, Hobbes argues, the redness were really a quality in the object that we perceive as red, this redness could not be separated from it, as is done by a mirror in reflection. If the sound were really a part of an object, it

could not be heard elsewhere, as in the case of an echo. So color, sound, odor, temperature, and the like are feelings in us produced by our brains in response to stimulations induced by material objects, and Hobbes calls them "feelings," "seemings," and "fancies." They are subjective appearances—what Locke and philosophers subsequent to him call *secondary qualities* in distinction from the *primary qualities* that really inhere in a physical object. [It will be convenient to use the terms primary and secondary qualities for this distinction, which was first made in a published book by Galileo, and subsequently by Descartes, before Hobbes published anything on the subject. Each of the three independently arrived at the distinction, which the development of physics obviously suggested.]

Hobbes is vague as to the real nature of the secondary qualities. As a strict materialist, he ought to insist, and indeed at times he seems to try to do so, that they are merely physical motions in the brain. On the other hand, when he calls them "seemings" and "fancies," he appears to concede that they are not really motions at all. Now if they are not motions, Hobbes ought to admit that something exists, at least in human fancy, that is not really matter and motion; in passages that incline to this standpoint he is not a strict materialist, and his position resembles that to which Huxley in the nineteenth century gave the name *epiphenomenalism*, [a view which concedes that consciousness cannot be identified with matter or energy, but insists that it is a mere by-product of physical motions with no causal efficacy of its own, a mere "squeaking" of the brain without any scientific or philosophical importance whatever].¹³

Hobbes valiantly attempts to account for other mental processes upon the basis of mechanical materialism, or epiphenomenalism, whichever it ought to be denominated in his case; the two do not differ greatly for most purposes. Imagination, he says, is "decaying sense." Just as waves blown up by the wind continue with diminished intensity for a

while after a storm is over, so motions in the brain persist with increasing faintness. After the stimulation that produced them has ceased, they become or give rise to *images*.

Images are readily distinguishable from immediate sense perceptions by reason of their faintness. So "sense" (sensation) decays, and "sense" that is "fading, old and past" is *memory*. Bits of decayed "sense" are sometimes combined in the imagination in different ways than those in which they were originally given, as in the case of a centaur, composed of parts of a man and a horse. Dreams and visions can be explained in this way, along with superstitious beliefs in fairies, ghosts, goblins, and the powers of witches; they proceed from interorganic disturbances, as a result of which imagination is confused with sensation. (Hobbes is here to be commended for giving a naturalistic explanation of phenomena in which many contemporary philosophers believed, as well as almost everybody else.)

Trains of thought, or mental discourse—what we call *association of ideas*—in a man are due to motions in his brain, says Hobbes. They may be *unguided*, without design and inconstant, as in casual conversation. Even in such cases a causal connection can sometimes be traced, Hobbes observes, giving as an instance a case in which a conversation on the betrayal of Charles I in the Civil War led one man to ask what was the value of a Roman penny. "For the thought of the war introduced the thought of the delivery of the king to his enemies; the thought of that brought in the thought of the delivering up of Christ; and that again the thought of the thirty pence, which was the price of that treason; and thence followed that malicious question; and all this in a moment of time—for thought is quick." ¹⁴ Hobbes thus anticipates the doctrine of the association of ideas, which was to play a considerable part in the subsequent development of British philosophy and psychology.

Again, mental discourse may be *constant*, regulated by some desire and design, which directs its course to some end.

A man seeks what he has lost, and his mind runs back from place to place and time to time, to find where and when he had it. Or he desires to know what would be the consequences of a proposed action, and he compares it with similar actions in the past. Of an effect imagined, we may seek the means to produce it. Or we may imagine all the possible effects that can be produced by something, once we have it. "The 'present' only has a being in nature; things 'past' have a being in the memory only, but things 'to come' have no being at all, the 'future' being but a fiction of the mind, applying the sequel of actions past to the actions which are present, which with most certainty is done by him that has most experience, but not with certainty enough . . . The best prophet naturally is the best guesser; and the best guesser he that is most versed and studied in the matters he guesses at, for he hath most 'signs' to guess by." ¹⁵

In all mental discourse Hobbes seems to see nothing but mechanical motions in the brain. He frankly points out that such discourse may be regulated by some future purpose or design in a person's mind. How such a sign can be a purely mechanical motion is a difficulty which Hobbes does not seem to realize, and which no mechanical materialist has ever been able to explain.

Processes of feeling and willing Hobbes also regards as motions in the body. There are two sorts of motions peculiar to animals and men: *vital*, such as the course of the blood, breathing, nutrition, excretion, etc., and *voluntary*, such as "to 'go,' 'speak,' or 'move' any of our limbs in such manner as is fancied in our minds." ¹⁶ Imagination is the first internal beginning of all voluntary motion; the latter, in its initiation, within the body, before it becomes visible to external observation, is called *endeavor* (*conatus*, conation). This endeavor, when it is toward something that causes it, is appetite in such cases as hunger or thirst, or *desire* in most other instances. When the endeavor is away from some object, it is called *aversion*. Men are said to *love* what they

desire, and to *hate* objects to which they have aversion. The only difference is that by desire and aversion we always mean the absence of the object, and by love and hate most commonly its presence. Whatever is the object of any man's desire he calls *good*, and the object of his aversion he calls *evil*. Once an object is perceived by the senses, a motion proceeds from the sense organs to the brain; when a motion also passes from the sense organs to the heart, the latter responds with an endeavor of desire or aversion. When the desire or aversion is satisfied we feel *pleasure*; when it is impeded we feel *displeasure*. *Good* is thus identified with pleasure, evil with displeasure. Hobbes is thus, roughly speaking, a *hedonist* (from the Greek *hedone*, pleasure), and identifies good with pleasure and bad or evil with its opposite. He is also an *egoistic* hedonist, since he defines good only in terms of the individual. In his psychology of endeavor, the last desire or aversion in a process of deliberation, the one that immediately precedes overt action, Hobbes calls the *will*.

Hobbes thus views all mental processes as motions of physical particles in the body. His description of them is not of course a mechanical explanation in terms of atoms and molecules—physiology and physics even today could not give an adequate account in such terms, much less in his time. His analysis of human behavior is really based on introspection, guided and inspired by his conviction that these processes are fundamentally mechanical and material in their constitution. The function which he attributes to the heart is at least a foreshadowing of the large part we now know visceral processes and the sympathetic system play in feeling, emotion, and volition.

In stating psychological processes in terms of motion, the twentieth century philosopher cannot fail to admire Hobbes' acuteness. He cannot be held responsible as a philosopher for the inaccuracies due to the imperfect development of physiology in his time. In essentials, from a philosophical standpoint, he discloses the merits and defects of any mecha-

nistic view of organic life and human behavior. He rightly regards man as an animal with a bodily organism composed of matter in motion, and pushes his description as far as he can from that standpoint. What he fails to see is that no animal organism acts in the same manner as inorganic matter. That the animal struggles for existence, Hobbes realizes, as well as the fact that it has desires and aversions. He fails to see that such a struggle implies determination of a different kind from that which goes on in the inorganic world. He overlooks the coöperation between different bodily organs, the way in which the whole determines as well as is determined by each part. He does not take sufficient account of selective attention, of how anticipations of the future and memories of the past give human deliberation and volition a different character from purely physical reactions. This it was left for Descartes and Leibniz to recognize. Yet, after all, man is an animal, composed of matter, and subject to the laws of mathematics and physics. Hobbes has seen this, and developed, even if he has exaggerated, its implications. Those of us who dislike materialism and naturalism cannot fail to recognize that they call attention to basic phases of reality of which philosophy must take account.

IV. ETHICS AND POLITICAL PHILOSOPHY

In a *condition of nature*, prior to the formation of a political state, everyone, according to Hobbes, would seek his own preservation, and the gratification of his own desires for selfish pleasures, such as gain and glory. There would be no morality such as we know. Everybody would have a perfect right to whatever he could get and keep. There would be no such thing as law or injustice. The inevitable result would be a *war of all against all*; men would perpetually either be actually fighting or in constant fear of being attacked. For war consists not only in fighting, but also in constant dread and preparation for conflict; "for as the nature of foul

weather lieth not in a shower or two of rain but in an inclination thereto of many days together, so the nature of war consisteth not in actual fighting but in the known disposition thereto during all the time, there is no assurance to the contrary.”¹⁷ There would be no sense of security, and no incentive to industry. All would be in perpetual fear and poverty. Human life would be “solitary, poor, nasty, brutish and short.” Whether Hobbes believed that such a condition of affairs ever actually existed, as a matter of history, is uncertain. He says that it probably was never universal. He thinks, however, that an approximation to such a condition of affairs can be observed among savages, and that it is implied in the conduct of civilized men. If anyone doubts this, “let him therefore consider with himself, when taking a journey he arms himself and seeks to go well accompanied; when going to sleep he locks his doors; when even in his house, he locks his chests . . . Does he not there as much accuse mankind by his actions as I do by my words?”¹⁸

Moreover, *international relations* are always in such a condition; “in all times kings and persons of sovereign authority . . . are in constant jealousies and in the state and posture of gladiators, having their weapons pointing, and their eyes fixed on one another, that is, their forts, garrisons and guns, upon the frontiers of their kingdoms, and continual spies upon their neighbors.”¹⁹ *Force and fraud* are the cardinal virtues in relations between states, at least in time of war; on this point Hobbes seems to agree with Machiavelli.

Men naturally wish peace and security, and to escape from the misery and horror of their natural condition. This they have effected by the institution of a *commonwealth* based on mutual consent, by which each individual agrees to obey the commands of a common sovereign, which may be an individual man and his successors (monarchy), or a group of men (aristocracy or democracy, according to the size of the group). In England the sovereign is an individual

man. The power of the sovereign is absolute, and he can do no wrong for which he can be legally held to account; he is responsible only to God and his own conscience. Others have made a covenant to obey him; he has made no covenant with them. He has the authority to make laws, establish and appoint the judiciary, determine war and peace, inflict punishments, and establish the state religion. All his subjects should obey him; otherwise there must be conflict, war, and a return to the wretchedness of the state of nature. Since the commonwealth has been formed as a matter of individual selfish interest, "the obligation of subjects to the sovereign is understood to last as long, and no longer, than the power lasteth by which he is able to protect them." If he loses his power and is conquered by another, and submits, his subjects become subjects of the conqueror. "But if he be held prisoner or have not the liberty of his body, he is not understood to have given away the right of sovereignty; and therefore his subjects are obliged to yield obedience to the magistrates formerly placed, governing not in their own name, but in his." ²⁰

Hobbes' ethical and political philosophy is based wholly on egoism and hedonism. Men do and should act only in accordance with their own interests. In the condition of nature a man has a *natural right* (*jus naturale*) to do anything that he pleases, and to possess anything that he can take and hold against all comers. Quite different from natural right, however, is *natural law* (*lex naturalis*).

A *natural law* is a precept or general rule which man discovers by his reason that it is his interest to obey, and so it is his *obligation* to do so. (Interest and moral obligation are identical in this naturalistic system of ethics.) The *first* and fundamental natural law is that men should "seek peace and follow it." From this ensues the *second* law, "that a man be willing, when others are so too, as far-forth as for peace and defense of himself he shall think it necessary, to lay down this (natural) right to all things, and be contented with

so much liberty against other men as he would allow other men against himself." This is Hobbes' naturalistic interpretation of the Golden Rule. The mutual and voluntary renunciation of natural rights is effected through a *covenant* or *contract*. So Hobbes is one of the first enunciators in modern times of the doctrine that the state owes its origin to a *social contract*. The *third* natural law is "that men perform their covenants made," without which contracts would of course be futile. Ten other natural laws follow: the obligation to good will; mutual accommodation; pardoning the offenses of the repentant; infliction of punishments only for the correction of offenders or deterrence of others, and not from vengeance; avoidance of contempt or hatred of others; acknowledgment of all men as one's equals; abstinence from reserving any rights for oneself, that one is not content should equally be reserved by others; a just or proportionate distribution of goods held in common; safe conduct; and settlement of disputes by judicial process. "These laws of nature are immutable and eternal; for injustice, ingratitude, arrogance, pride, iniquity, acception of persons, and the rest, can never be made lawful. For it can never be that war shall preserve life, and peace destroy it." ²¹

Thus Hobbes deduces a remarkably comprehensive system of social ethics from purely naturalistic foundations, based on egoistic hedonism. Such an ethic is probably compatible with a materialistic metaphysic. However, Hobbes has arrived at this ethic, not by studying motions in the brain and heart, but by analyzing human motives through observation and introspection, and formulating rules for conduct in a series of propositions deduced from egoistic premises.

V. THE INFLUENCE OF HOBBS

It is hard to estimate the influence of Hobbes upon the history of modern philosophy. He has had few, if any, avowed supporters. While many books in his own generation and

that immediately following professed to refute the "Hob-
bists," it is doubtful whether such persons actually existed.
The Puritans believed in the right of the people at their
pleasure to choose and change their form of government in
state and church. The Stuarts and their supporters affirmed
that both state and church owe their origin and authority
to divine institution. Hobbes' views on these subjects pleased
no one in his own century. In the generation after his death
the Revolution of 1688 established that it is possible for the
people to change the constitution of the state without revert-
ing to universal confusion, that rulers can be held morally
responsible by their subjects, and that individual liberty in
matters of religion, speech, publication, and other activities
can and should be allowed to the citizens of an enlightened
country.

Neither in his own nor any subsequent time has Hobbes'
mechanistic materialism appeared convincing to most phi-
losophers. Nor have his combined egoism and hedonism been
more satisfactory. Not the egoism, for although man indeed
has selfish interests, and often is, as Hobbes said, a wolf to
his fellow men, yet this is not universally true; man must
have some native social impulses, else he could not, as
Hobbes supposes he has done, enter into covenants with his
fellow men based on mutual confidence. Not the hedonism,
in the judgment of the majority of modern philosophers,
who believe that man has desires for other objects than pleas-
ure. To be sure, the hedonistic controversy has had a long
history and is not yet at an end. Hobbes' emphasis, however,
was on egoism rather than hedonism, and he is relatively
unimportant in the history of hedonistic ethics.

Yet Hobbes has always been studied, and is now generally
given a place among the major philosophers of modern times.
In his method, he marks an advance upon the narrowly
inductive empiricism of Bacon, finding a place for mathe-
matical reasoning and deduction from careful definitions. He
was right in his attempt to erect a philosophy upon natural

science, and to develop an interrelationship between inorganic nature, men as individuals studied by psychology, and men organized in the state. Although a purely mechanistic materialism is inadequate, it was necessary for someone to develop as fully as possible the implications of such a position. And, after all, in some sense or other it is true, although not the whole truth, that whatever exists is matter and whatever changes is motion. It is also true that human mental processes develop in response to external stimuli, and that they interpret the experience thus obtained, and so gain understanding. Hobbes did well to pry ethics loose from theology and affirm that good and bad should be defined in terms of what will or what will not most completely realize human desires. He saw that the state is the expression of human common interests and general agreement, even if he did not appreciate the full implications of this truth. When mutual understanding cannot be attained, as is still painfully the case in international relations, conditions today are almost as bad as Hobbes pictured them.

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CHAPTER V

DESCARTES

I. LIFE

René Descartes (Des Cartes, Cartesius, 1596–1650) came of a family of well to do gentlemen and civil servants in Touraine. Since he showed remarkable intellectual promise as a child, his discerning father sent him to the famous Jesuit school of La Flèche, recently established by Henry IV, where he received a thorough training in the learning of the time. Being of delicate health, and showing marked talents, he was allowed unusual privileges, and was permitted to study in his own way. He then formed the habit, which he continued throughout life until he went to Sweden, of doing his most important work while lying in bed mornings, and studying and reflecting by himself. In this way he said that he could digest his thoughts most thoroughly, and arrive at clearness and distinctness. He was always an independent thinker who attached little value to oral discussions with others, although he welcomed objections from correspondents, to whom he could reply in writing at his leisure after due reflection. In later years he felt great affection for his Jesuit teachers at La Flèche, and sought to win their approval of his philosophy. However, at the time that he left their school he felt that their instruction did not make a sufficient break with scholasticism, nor furnish a satisfactory method for the discovery of new truth.

After completing his studies at La Flèche in 1614, he entered the gay life of young gentlemen of his social class at Paris, but his tastes were too intellectual for frivolous amusements to hold his attention. Dissipation did not appeal to

him, although he is said to have won some success in those forms of gambling in which his mathematical ability and coolness of calculation could be of assistance to him. He learned to fence, and, scholar as he was, wrote a treatise on the subject. Soon tiring of the life of a gentleman of leisure, he entered the military service of foreign countries in amity with France, in order to see more of life and the world. His status as a volunteer without pay, serving princes of whom he was not a subject, gave him more freedom for study than is ordinarily the lot of a soldier. His interest at this time seems to have been chiefly in mathematics, and in its application to military operations. The most important event that occurred during his years as a soldier took place on November 10, 1619, when military duties were not pressing and he spent the whole day in his comfortably heated room, engaged in reflection. It was then, apparently, that he outlined the rules of method on which his philosophy, as well as his mathematics, was to be based. Throughout his life, his method in philosophy was imitative of mathematics.

After retiring from military service in 1621 and devoting two years to travel, he sold the estates which he had inherited, found that he had sufficient income on which to live with comfort, and definitely decided to devote the rest of his life to writing on philosophical, mathematical, and scientific subjects. This he did mostly in Paris until 1629, when he withdrew to Holland, the country in Europe in which a scholar could work in privacy, most undisturbed either by curious visitors or by religious persecutors. There he remained twenty years, and became the most famous philosopher and mathematician of his time. In 1649, Christina, the young Queen of Sweden, invited him to her court to instruct her in his philosophy. The harsh winter climate was a severe trial to the warm-blooded Frenchman, especially as the Queen chose five o'clock in the morning as the hour for her lessons with the philosopher. He caught a severe cold upon the lungs and died the following year.

II. METHOD

Like Bacon, Descartes early became convinced that the greatest need in philosophy was the formulation of an accurate and fruitful method of investigation. Descartes, however, better understood the methods actually employed by the mathematicians and physicists. He was himself a brilliant mathematician, and discovered analytic geometry. He concluded that a method could be devised for philosophy analogous to that which he was using successfully in geometry. In Part II of his *Discourse on Method*, he outlines in a popular way four rules which he determined to follow. "The first of these was to accept nothing as true which I did not clearly recognize to be so; that is to say, carefully to avoid precipitation and prejudice in judgments, and to accept in them nothing more than was presented to my mind so clearly and distinctly that I could have no occasion to doubt it. The second was to divide up each of the difficulties which I examined into as many parts as possible, and as seemed requisite in order that it might be resolved in the best manner possible. The third was to carry on my reflections in due order, commencing with objects that were the most simple and easy to understand, in order to rise little by little, or by degrees, to knowledge of the more complex, assuming an order, even if a fictitious one, among those which do not follow a natural sequence relatively to one another. The last was in all cases to make enumerations so complete and reviews so general that I should be certain of having omitted nothing." ¹ (Descartes, it will be observed, is strictly a rationalist in the formulation of his method.)

The reader will at once observe that these rules indicate the procedure that would be followed in solving an original problem in geometry. The method is further elaborated in the twenty-one rules for the direction of the mind (*Regulae ad Directionem Ingenii*) which he circulated in manuscript among his friends, and which came to the attention of

Leibniz and Locke and must have exercised considerable influence upon them and others.

To accept nothing as true which he did not recognize to be so meant for Descartes that the proposition must be *clear* as a whole, and also *distinct* in its details and relations.² Clear and distinct propositions are apprehended by the mind *intuitively*, like the axioms of geometry, for instance; nothing directly perceived by the senses is likely to be clear and distinct in this way; *intuition* and not sensation is the primary source of knowledge. So Descartes is a rationalist and not an empiricist. Each separate step in a series of geometrical theorems is seen to be true intuitively at the time that it is established. A series of such intuitions constitutes a *demonstration*. While the mind cannot hold before itself simultaneously all the details in a long series of demonstrations with clearness and distinctness, it can remember that each separate step has previously been understood intuitively, and that they follow one another in strictly logical order. At the close, it is necessary to review the demonstrations so carefully that one becomes absolutely certain that one has seen every step intuitively, with clearness and distinctness, and that nothing has been overlooked or taken for granted. No chain of reasoning can be stronger than its weakest link.

Since the clear and distinct ideas on which all certain knowledge rests are not arrived at by mere sense observation, their source must be found in *innate ideas*. This doctrine is reminiscent of Plato to the extent that such ideas are thought to be inborn in the mind and to have a validity of their own superior to sensuous observation; but there is no suggestion in Descartes that they are memories retained from a previous state of existence. Innate ideas, according to Descartes, are not in the mind at birth, but "are innate in the sense that we say that generosity is innate in certain families, while in others certain diseases like gout or gravel." Infants are not born with them, but with a facility of acquiring them. Innate ideas are contrasted with *adventitious* ideas gained

through sensation (as when we see the sun or feel heat) and *factitious* ideas due to the imagination (like sirens and hippocryphs). Descartes nowhere gives us a catalogue of the ideas which he regarded as innate. They evidently include the axioms of mathematics, the laws of thought, and other propositions which he treats as self-evident, such as the doctrine that a cause must have at least as much reality as its effect, and the certainty of one's own existence. Descartes would not have claimed that all or even very many men are conscious of some of the innate ideas most important for his system of philosophy. It is sufficient to establish the innateness and validity of any ideas, if they can be shown to be intuitively certain when tested by thoroughly trained and unprejudiced minds.

Error for Descartes arises from the *will*. No idea taken by itself is either true or false until an assertion is made about it. (To use an illustration of our own, "centaur," just as an idea, is not a judgment and cannot be true or false. If we go on to say, "Centaurus are found walking about on the streets of New York," the judgment is erroneous; but if we say, "Centaurus are sometimes pictured upon Greek vases," the judgment is true.) Now if we confine our assertions to what is intuitively or demonstratively clear and distinct, we shall never fall into error. But if impelled by emotions or prejudices or confused ideas, we allow our wills to run away with us and make assertions for which we do not have adequate evidence, we fall into error.³

III. COGITO ERGO SUM

For Descartes the formulation of a method was merely a preliminary step. His ambition was to discover what knowledge of existing things can be gained with certainty. He did not think that all the information he had been taught at La Flèche was by any means false. However, some of it was, and until he had found a method of his own, he had no

way to discriminate. Now that he is in possession of a method, he hastens in the first of his *Meditations* to make use of it.

This he does in a striking manner. He proceeds to doubt everything that it is possible to doubt, in order that he may discover of what he is absolutely certain because he cannot doubt it without assuming its existence. (This is his *initial* or *methodological* skepticism, as it is sometimes called; it is purely a form of procedure; Descartes is in reality no skeptic.) He finds that the senses frequently deceive one; therefore it is better not to trust them. He remembers that he has often dreamed in the night of sitting in his dressing gown by the fire when he was really in bed; it may be that he is dreaming now, and in actuality he may not be at all where he supposes. It might seem that researches in mathematics must be true; in dreams as well as when awake he has always found that two and three equal five; yet even this may be false; perhaps some evil genius is deceiving him. Descartes thus finds it theoretically possible to doubt the testimony of his senses, his memory, his waking thoughts, the existence of the external world, and even the truth of mathematics. One thing, however, he finds that he cannot doubt; namely, the fact of his own existence. *Cogito ergo sum* (I think, therefore I am). If he were to try to doubt that he exists, he would have to admit the fact that he is doubting, and to admit that he is doubting is to imply that he exists (so the *cogito ergo sum* becomes *dubito ergo sum*, I doubt therefore I am). *Cogito ergo sum* is not a syllogism, as Descartes explains in his published reply to the second set of *Objections to the Meditations*.⁴ It is a simple movement of thought known *per se*, a direct intuition; "I think" or "I doubt" immediately implies "I am."

Descartes next asks, "What am I?" His reply is, a thing which thinks, that is, a thing which doubts, understands, conceives, affirms, denies, wills, refuses, imagines, feels. A thing which does all this must be a *soul*, a spiritual sub-

stance, whose principal attribute is thought. There could not be thoughts without a thinker; nor could such an attribute as thought exist unless there were a substance in which it inheres.

That Descartes was right in affirming the certainty of self-consciousness in some sense or other, practically all subsequent philosophers have admitted. That thought is an attribute that inheres in a spiritual substance is a remnant of scholastic thinking in Descartes in which many today would not be able to follow him. It is also to be observed that Descartes has established the certainty of his own existence by the impossibility of doubting it, since to doubt it would be to affirm it. This is the most certain kind of philosophical reasoning. Unfortunately there are very few propositions that can be proved by the fact that to doubt them would be to affirm them. Universal skepticism can be refuted in this manner, but not many other positions. So in Descartes' further reasoning he has to fall back upon the methods of intuition and demonstration mentioned in the preceding section.

IV. GOD

Descartes' three principal arguments for the existence of God can be stated very simply for our purposes; to do full justice to them would involve a more extended inquiry than is possible here.

The first of these can be freely paraphrased in this way. I am able to conceive of an absolutely perfect Being, "a substance that is infinite, eternal, immutable, independent, all-knowing, all-powerful, and by which I myself and everything else, if anything else does exist, have been created." ⁵ Now, since I am finite and imperfect, I could not of myself have formed the idea of an absolutely perfect Being. For it is a clear and distinct idea that any effect must have a cause adequate to have produced it, and I who am finite could not of myself have imagined the existence of an infinite

Being. Therefore such a Being must actually exist; else I could never have formed the idea of it.

The second argument is similar. Whoever knows something more perfect than himself cannot be the author of his own being; since the knowledge cannot have been given by him to himself, it must have come from an infinitely perfect Being. Moreover, in view of the nature of time and the duration of things, it does not follow from the fact that we exist at this instant that we shall continue to exist in following instants of time; there must be an eternal Being to conserve our own existence.⁶

Descartes would not have thought that any valid objection could be advanced against these arguments by an appeal to the history of religions, with an account, say, of the evolution of the idea of God from animism. He would have said that in whatever manner the idea of God may have developed psychologically or sociologically in the history of religious experience, such an idea could never have developed at all in the human consciousness unless there had been a cause adequate to produce it. The validity of this kind of reasoning has remained constantly in dispute ever since Descartes. Rationalists and Idealists have been disposed to agree with Descartes in principle; the mind cannot be aware of a limit unless it has already passed it; we should not know that anything is finite unless in some sense we already knew the Infinite; to put the argument in the eloquent language of Pascal, "Thou wouldst not seek me if thou hadst not already found me." Empiricists endorse an objection that was made to Descartes by his correspondents, that there is nothing positive about such notions as "infinite" and "perfect"; such words merely imply the absence of limits which we observe, and are purely negative and eliminative in character; evidence for the existence of God can be derived only in some other way, such as critical examination of religious experience, or a scientific and philosophical interpretation of the world.

The third of Descartes' arguments for the existence of God is a revival, slightly modified, of the *ontological* proof of St. Anselm in the Middle Ages. The very conception of an infinite and absolutely perfect Being logically implies the existence of such a Being. For a Being that did not exist could not be infinite and perfect, since it would lack one essential quality of infinitude and perfection, namely existence. Existence is as definitely implied in the idea of God as the consequence that its three interior angles are equal to two right angles follows from the definition of a triangle.

This third argument has appealed to some Rationalists since the time of Descartes. However, it rests on two assumptions: (1) that existence must be regarded as one of the qualities of the concept of an absolutely perfect Being; (2) that matters of existence in this instance, at least, can be discovered by a purely analytical examination of conceptions that are clear and distinct, without recourse to empirical evidence. Perhaps the point can be put more simply. The first assumption asserts that if a person thinks of an absolutely perfect Being, he must also think of that Being as actually existing, since otherwise the Being would not be perfect. This is questionable. But suppose this assumption granted. Unless the second assumption also be conceded, the first, taken alone, might only lead to the conclusion that a person who clearly and distinctly thinks of an absolutely perfect Being must also think of that Being as in existence; which would not be enough to prove that the Being actually does exist outside of the person's thought.

Descartes' arguments for God follow logically enough from his premises. If clearness and distinctness of ideas is a sufficient proof of the existence of corresponding objects in any case at all, the idea of God is assuredly such a case. If a finite mind could not of itself conceive the infinite, and yet as a matter of fact does conceive it in any except a purely negative manner, God must actually exist in order to make any such idea possible. If we were to see an imprint that could

have been produced only by a die with certain characteristics, we should be compelled to assume the existence of the die. If the positive idea of an infinite Being has been imprinted upon finite minds, an infinite Being must exist to have produced the idea.

Descartes himself was perfectly satisfied with the conclusiveness of his arguments for the existence of God. He derived important consequences for his system therefrom. Since God exists, and since He is an absolutely perfect Being, He cannot be a deceiver. He has imparted to men in the *natural light* of reason, which makes use of clear and distinct ideas, a certain and dependable source of knowledge. Without this assurance, Descartes goes so far as to say that no one could be certain of his own past, or of natural laws, or of anything else except at each passing moment, since he would have no ground for confidence in his memory and reasoning powers. An atheist would have no logical refutation of skepticism. With God as guarantor of intuitive and demonstrative knowledge, on the other hand, human error can be due only to our own self-deception in impetuously accepting judgments which our wills, emotions, prejudices, and confused thoughts incite us to accept without rational scrutiny. God has afforded us a sure source of knowledge in our powers of intuition and demonstration; if we do not utilize it, and instead draw conclusions in other ways, only we are to blame.

V. THE THREE SUBSTANCES

Since God is not a deceiver, Descartes concludes that he may be confident of the existence of his own body and of external objects. To be sure, the perception of these through the senses is confused and may lead to error, but if we use the natural light of reason we may discern much of the nature of physical objects.

Let us take his famous illustration of a piece of wax fresh from the beehive, which is hard, cold, easily handled, emits

a sound if struck by the finger, and retains something of the sweetness of the honey which it contains and the odor of the flowers from which it has been culled. Now put the piece of wax near the fire. What remains of the taste is exhaled, the smell evaporates, the color alters, the figure is destroyed, the size increases, it becomes liquid and hot, and no sound is emitted when it is struck. Nothing persists of all that the senses brought to notice. Yet the same wax remains. Precisely what is it that remains? Something extended, flexible, and movable. Something not to be understood by the senses but by thought alone.⁷

The real nature of such a corporeal object evidently consists of what we shall see Locke call its substance and primary qualities. The essential attribute of *material substance* for Descartes is its mathematical properties, what he sums up in the word *extension*, that in matter which is clearly and distinctly comprehended by the scientifically trained mind. He denies the existence of atoms in the sense of indivisible material particles, since anything that has extension must be infinitely divisible. His view of matter is that of a mathematician rather than of a physicist. But his theories on the subject belong rather in the history of science than to that of philosophy.

A *substance* he defines in the *Principles of Philosophy* as "an existent thing which requires nothing but itself in order to exist," and he points out that to say the truth only God answers this description perfectly, as a Being that is absolutely self-sustaining. However, he adds, *mind* and *matter* may be regarded as substances in a sense, since they need only the concurrence of God in order to exist. Both mind and matter are complete and self-sustaining, and each of the two has one principal *attribute*, respectively *thought* and *extension*.

What, then, is Descartes' conception of the relation of these three substances to one another? God is the creator of the other two, in the double sense that He brought them

into existence in the first place, and that He continues to maintain them in existence. They are dependent on Him, while He is not dependent on them. He differs from other spirits in being infinite and self-existent. God has created matter and finite spirits in accordance with His purposes, but scientists and philosophers cannot presume to discover the divine purposes, and they should confine themselves to the study of efficient causes. From the omnipotence and other attributes of God, it is evident that all events have been foreordained by Him. On the other hand, we clearly experience *our own freedom of will and moral responsibility*. We do not know how to reconcile divine omnipotence and human freedom, but both in some way are certainly true. Descartes needs to establish the existence of God in order to find assurance of the possibility of human knowledge through intuition and demonstration; further than this he is not as a philosopher much concerned with theological questions. His business is rather to study the characteristics of matter and of minds. The physical world is governed by observable and describable mechanical laws; these cannot be deduced from what knowledge we have of God, but must be ascertained through scientific investigations.

Matter and its motions in space Descartes believes remain constant; matter never increases in bulk; seeming expansion is merely a case in which the material particles are more separated from one another; the total amount of motion never increases or decreases. He seems to anticipate to some extent the later doctrines of the conservation of mass and of energy, although of course neither had been formulated with scientific precision in his time.⁸

In his interpretations of inorganic matter, of plants and animals other than man, and of the human body, Descartes is as much of a mechanistic materialist as Hobbes. Plants and animals are machines; they have no souls; every movement that they make is reducible to mechanical processes. In the history of biology, Descartes is regarded as one of

the first advocates of the mechanistic theory of life, a view held by many biologists but few philosophers today.

On the other hand, when it comes to man, Descartes is no materialist. Man has a soul as well as a body, and this soul is just as truly substantial; its substance is not matter with the attribute of extension, but mind with the attribute of thought. The *cogito ergo sum* argument establishes this. Although Descartes speaks in a general way of mind as substance, he really thinks of each soul as a separate substance, distinct from other souls and from God.

The problem then arises, What is the relationship between the human soul and the outside world? The soul receives sensations and confused ideas as the result of the stimulation of the nerves by external objects and by the various organs of the body. Through the will the soul causes movements to take place in the body, as when one moves one's limbs, walks, or speaks. Through the bodily organs it communicates with other persons. Emotions are due to disturbances of the soul by organic processes, and are a cause of confused thought, as opposed to the clear and distinct thought which the mind conducts independently.

Such a view is clearly *interactionism*. The body at times affects the mind; at other times the mind directs the body, and through it makes changes in the position of external objects. Descartes, probably the first philosopher to see clearly the problem of the relation between the mind and the body in a modern way, is the first great representative of interactionism, one of the classical interpretations of the relationship between the mind and the body.

Interactionism has appealed to many philosophers since the time of Descartes, and it still has advocates. It is a common sense doctrine; it certainly seems to us that our minds receive stimulations from our bodies, and that they in turn initiate bodily movements. On the other hand, interactionism furnishes serious difficulties to the philosopher. For how can the mind, which is and has neither matter nor motion,

either be affected by, or initiate or determine the direction of motions going on within the body? Would not some motion, however slight in amount, be lost every time the mind receives a sensation or experiences an emotion? And would not the mind have to expend energy in order to set in motion material particles in the brain and so cause bodily movements to take place? If the mind and body are composed of entirely different substances, each independent of the other, how can interaction between them occur any more than a battle between an elephant and a whale? Where is there any possible point of contact?

Descartes realizes these difficulties acutely. He tries to minimize them as much as possible. In the last book that he published, *The Passions of the Soul*, he thinks that there probably is only one point at which the mind and body meet. He even gives it a probable location in the pineal gland. He chose this gland because it is simple in structure, not consisting of two lobes like other parts of the brain; and there is nothing like a twofold division in the mind, whose processes are simple and unitary in character. In vision, for instance, the mind normally sees only a single object; the nervous currents ascending from the two eyes must converge at a single point in the brain before their joint product is presented to the mind. To limit the contact between body and mind to a single small organ did not enable Descartes to escape the real difficulty. Nor did it greatly help him to say, as he sometimes does, that the mind does not add to the amount of motion going on in the body, but merely determines in some cases the direction that it follows.

There are indeed passages in his writings in which Descartes speaks of the soul thinking some thought on the *occasion* of what is going on in the body, or of bodily movements being the occasion of thoughts.⁹ The word occasion, instead of cause, suggests that there is no direct causal connection between the body and the mind, such as occurs between two mental events or two physical events that are

related as cause and effect. The term Occasionalism was taken up, as we shall see, by certain of the successors of Descartes in further efforts to solve the problem. Hobbes, in the passages in which he insists that all thought simply consists of motions in the brain, is more logically consistent than Descartes. The latter is broader minded, and realizes that human thought is something radically different from the movements of material particles; that both exist; that neither can be reduced to the other; and that changes in each are sometimes followed by changes in the other. Descartes is honest and faces all the facts, even if he meets with difficulties that he is unable to solve. For that matter, no one yet has proposed a solution of the problem that meets with general acceptance, while dualistic and interactionistic theories like that of Descartes still meet with considerable favor.

VI. THE CONTRIBUTIONS OF DESCARTES TO PHILOSOPHY

Descartes probably brought to general attention a larger number of important problems than any of his predecessors or contemporaries; at any rate, he made them better understood. He had a genius for clear-cut distinctions, like that between mind and matter, for instance. For him the mind is conceived more as we think it today than it was by any of his predecessors; he does not attribute a nutritive soul to plants and a locomotive and sensitive soul to animals. The psychological relationship between the mind and the body is, as we have seen, one of the great problems which he set for modern thought, and his hypothesis of interactionism is one of the possible solutions still considered. Even more important for philosophy is the problem of knowledge, which Descartes raises in one of its most perplexing aspects: How can our minds, separated from the outside world and from other minds by nerves and sensory organs, know reality? Or, put more generally, What is the relation between thought and existence? His proposed rationalistic solution at

least throws light upon the question. He shares with Hobbes the credit for bringing to attention the mechanistic theory of life and the distinction between the primary and secondary qualities.

Descartes is sometimes acclaimed as the real father of modern philosophy. There were, as we have seen, modern philosophers before him, but none of them were his equal. Since Descartes, philosophical study has been a more thorough, systematic, and intelligent undertaking, and in consequence more fruitful. Descartes had the greatest influence of any philosopher of the Renaissance. He made the most complete break with scholasticism. Avoiding, on the one hand, mysticism which accepts beliefs uncritically, and on the other, positivism which confines itself to the collation of bare facts, his rationalism is a disciplined and discriminating method of inquiry. His employment of intuition and demonstration is not the only method in philosophy, but it is an important one, and it has proved the most successful of any that had thus far been advanced. He intended it primarily for use in metaphysics, logic, mathematics, and abstract science in general, and it is in these fields that it has since proved of most value. It is not a good method for ethics, politics, or the philosophy of religion, nor for any field in which an historical method of approach is requisite. But one man could not be expected to find a universal method for all fields of inquiry. His method is based upon the only great scientific achievements that had yet been made, and he used it with happy results.

Descartes is said to have been the first to have offered a perfect model of French prose. His insistence upon clearness and distinctness in thought and expression led him to define his terms with precision, and as the first great philosopher to write in the language he must have done much to fix the vocabulary and to set standards for subsequent philosophers in methods of statement, organization of thought, and clarity of composition. French philosophers have some-

times been accused of superficiality, but very rarely of unintelligibility. If the French language has become almost a perfect medium for philosophical statement, this is due in considerable measure to Descartes. The close connection between French philosophy and belles lettres is in part a consequence of the fact that French philosophers write good literature.

VII. CARTESIANISM

Descartes made a deep impression upon many leading philosophers of his time, with whom he corresponded. He also sought the approval of the Jesuits and other authorities of the Catholic church. For a short time after his death it seemed possible that Cartesianism (the philosophy of the followers of Descartes) might replace scholasticism as the philosophy most favored by that Church. However, before long it came to be felt that there were dangers lurking in a philosophy that insisted upon clearness and distinctness as a requisite for the acceptance of truth, and began its reasoning with skepticism regarding everything that could not meet this test. In 1663, the works of Descartes were placed upon the index of forbidden books at Rome. The teaching of his philosophy in French universities was forbidden by royal decree. In Holland the orthodox Protestant clergy attacked Cartesianism, and its supporters were excluded from university chairs and from the ministry. The first attempt to look at religion from the spirit of modern as opposed to medieval philosophy did not meet with official favor anywhere. Yet Cartesianism continued to be the prevailing philosophy among independent thinkers until the Renaissance came to an end about 1690, the year of the publication of Locke's *Essay on the Human Understanding*.

It is difficult to determine how many of the philosophers of this period should be denominated Cartesians. All of them were measurably influenced by Descartes, though most of them showed originality, and deviated from him in some

manner. Usually, however, philosophers like Geulincx and Malebranche, whose views may be regarded as representing the transition from the thought of Descartes to the widely divergent systems of Spinoza and Leibniz, are denominated Cartesians; while the latter two philosophers are considered to have passed in their mature publications beyond the limits of Cartesianism.

The student must be referred to the more advanced texts for the views of the Cartesians in detail. Besides Geulincx and Malebranche, the more noteworthy Cartesians include Mersenne, Rohault, Régis, de Cordemoy, la Forge, Arnauld, Clauberg, and Bekker. Pascal seeks refuge from the skepticism to which Cartesianism seems to him to lead, in a mysticism which affirms that the heart has reasons of its own which our mere intellect does not know, while Bayle accepts and develops skepticism in a manner anticipatory in some ways of the French skeptics of the eighteenth century.

It will be sufficient here simply to note how some difficulties which we have observed in the philosophy of Descartes affected certain of his followers. Descartes, as we have seen, affirms the infinitude and omniscience of God, who alone strictly meets the qualifications of a substance, as dependent upon nothing else for its existence. We have also seen the trouble in supposing a causal interaction between the mind and the body, and that Descartes at times spoke as if a change in one was merely the occasion but not the real cause of a change in the other.

From these suggestions Geulincx, Malebranche, and others, each in his own way, developed a general position denominated *Occasionalism*. According to this view, whenever a volition of the mind seems to us to cause a bodily movement, our volition is only the occasion (or occasional cause) of the movement, while the real, efficient cause is God. Mind and matter never directly interact; the changes in either that seem to us to be caused by the other are really caused by God. In this way, the physical world and the

human mind is each a closed system, except for the intervention of God. A favorite analogy was that of two clocks (corresponding to mind and matter), which a clockmaker (God) causes to keep time in unison. The hands of each clock always correspond to those of the other, yet neither has any direct effect upon the other. The analogy inclines to strict determinism; the clockmaker manufactured them so perfectly, or he regulates them so carefully and constantly, that the hands of each always agree with those of the other.

It was only another step to go on and argue that no event whatever, whether physical or mental, is ever anything more than the occasional cause of any other event. It is no less impossible for us to understand how, for instance, the impact of one billiard ball can set another in motion, than how a thought in the mind can cause a muscle in the body to move. We must conclude that God is the one efficient cause of every event that ever occurs, whether mental or physical. Geulincx concludes from this that our freedom of will must be greatly restricted, and that it is our province to be submissive and humble. Malebranche exhorts us to "see all things in God" as their efficient cause; saints do this and act righteously, sinners fail to do so, and seek some immediate but sinful pleasure which God affords them, since He acts in accordance with uniform laws, but for which He will hold them to account in the end. The Occasionalistic view of the relationship between God, mind, and matter was too arbitrary to endure. The logical outcome was to conclude that mind and matter are parallel processes because they are attributes of a single substance. If it be decided that there is but *one* such substance in the universe, the result will be the *monistic* philosophy of Spinoza. If it be remembered that for Descartes each separate soul is an individual substance, and if Cartesian motion be reduced to force or energy and this latter be found to be mental in its constitution, the outcome will be a universe consisting of a multitude of mental substances—the *pluralism* of Leibniz.

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CHAPTER VI

SPINOZA

I. LIFE

Spinoza (1632–1677) is probably the most important philosopher of the Renaissance, although he had little influence with his contemporaries. His real worth began to be appreciated only in the closing years of the eighteenth century, when Lessing, Jacobi, Goethe, and other German scholars came to recognize the significance of his contributions. Spinoza was the only thinker of his time keen enough and bold enough to follow out to their logical consequences the implications of the Cartesian philosophy on its monistic side. He also had an extensive acquaintance, direct or indirect, with ancient and medieval Jewish, Arabic, pagan and Christian philosophers, as well as with Bruno, Hobbes, and modern scientists. Considerations derived from all of these sources were transformed by his brilliant mind into an original and independent system, to which nineteenth and twentieth century philosophers are indebted.

Baruch Spinoza came of a family of Jews who in the preceding century had been driven out of Spain and Portugal by the Inquisition, and had taken refuge in Amsterdam. There they had prospered, and his father seems to have been a moderately successful merchant in the city. The boy Baruch was given a good education, according to the standards of the time, studying the Bible and Talmud in Hebrew, and Jewish books upon religious and philosophical subjects. Later, desiring a broader outlook, he learned Latin in the school of Van Ende, a nominal Roman Catholic, where he read the works of Descartes and other modern philosophers,

and studied mathematics and the natural sciences. His studies presently made it impossible for him to accept all the statements of the Bible, together with the rabbinical interpretations, in a strictly literal manner. He probably had already begun to think of God and immortality along the lines of his later philosophy, which at that time would certainly have been thought unorthodox from the traditional Jewish and Christian points of view. With the impetuosity of youth, he may have stated his positions crudely, and hurt the religious feelings of his associates.

Baruch's sister, who wished to deprive him of his share of their father's estate, seems to have brought his heresies to the attention of the Jewish authorities. The rabbis, who had themselves suffered persecution, were not altogether intolerant, and they did not wish to lose their most brilliant pupil. They tried at first to dissuade him from what seemed to them his most serious errors, and, failing this, to persuade him at least to keep silent for fear of offending either the Jewish or the Christian community by what they wrongly supposed to be Atheism. Atheism was opposed to the foundations of both religions, and was then thought to be incompatible with honesty, good government, and decent living, since the basis of all morality was believed to be divine commandment. The Christians had welcomed the Jews to Amsterdam, but the rabbis feared that they might become hostile should they discover that the Jews were harboring a youth of brilliant but atheistic trend of thought. The rabbis even offered him a financial inducement if he would keep his views to himself. The young Baruch refused to be bribed or intimidated. So the rabbis, now indignant, expelled him from the synagogue with bitter curses of excommunication. All Jews were forbidden to have relations of any kind with him, read anything that he had written, or come within four cubits of him. A Jewish fanatic attempted to kill him. Thus at twenty-four years of age Spinoza became an outcast from his own people, thrown off without resources upon the outside

world. It was a terrible blow to the sensitive young man, and his subsequent philosophy developed as an attempt to guide his life and to make him master of himself, indifferent to ostracism and contumely.

Spinoza thereafter assumed the Latin form of his first name, Benedict, and lived among Christians. He was able to support himself in a modest way by grinding lenses for optical instruments, a trade which he had been taught as a boy. His real interest was the pursuit of philosophy, to which he devoted all the time he could spare from the necessity of making a living. In each of the places where he stayed—chiefly villages in the vicinity of Amsterdam, Leyden, and the Hague, and the Hague itself—he found friends among the intellectually minded residents, who visited him and eagerly studied his philosophy in manuscript form. For he he found it prudent to publish during his lifetime only two of his writings,—a commentary on the philosophy of Descartes compiled for his pupils, and the *Theological-Political Treatise* in support of his friend Jan De Witt, who was attempting to maintain popular government in Holland, with freedom of thought, speech, publication and religion. Spinoza received visits from a few of the eminent thinkers of his time and corresponded with others; among such were Oldenburg, secretary of the newly founded Royal Society in London (and through him Robert Boyle), the physicist Huygens, the philologist Voss, and the philosopher Leibniz.

In the course of time Spinoza became well enough known to be offered a professorship at the University of Heidelberg, and a pension from Louis XIV on condition that Spinoza dedicate a book to him. Both of these honors he refused, determined to lead an independent life and not risk his freedom to express convictions unreservedly. Spinoza found sufficient for his needs an extremely modest livelihood, barely if at all above what our sociologists would call “the level of subsistence.” Ever happy and cheerful, friendly with his neighbors and kind to everyone, he was beloved by all

who knew him. He occasionally attended the services of a small Protestant sect, the Collegiants, to which some of his friends belonged, but he does not appear himself to have become a communicant. He came to regard the Jewish and Christian religions as at one in what is fundamentally true and important, and he considered Christ to be the best interpreter of this truth. Born of a family with weak lungs, forced to inhale dust from the grinding of lenses, and fatigued by overwork in his studies and at his trade, he contracted consumption and died early in his forty-fifth year. He was sincerely mourned by his friends and neighbors; but the world did not notice that its greatest living philosopher had passed away.

II. MOTIVE AND METHOD

Few modern philosophers have undertaken their task with such complete earnestness as Spinoza. Ostracized by his relatives and the friends of his youth, at first he must have been almost in despair. The motive that led him to devote his life to philosophy was the need of finding some lasting good that would give him contentment and serenity of mind independent of all external circumstances. "I thus perceived that I was in a state of great peril, and I compelled myself to seek with all my strength for a remedy, however uncertain it might be; as a sick man struggling with a deadly disease, when he sees that death will surely be upon him unless a remedy be found, is compelled to seek such a remedy with all his strength, inasmuch as his whole hope lies therein." ¹ For him the ordinary attractions of social life had proved to be vain and futile. No secure and lasting satisfaction, he reflected, can be found in riches, fame, or the pleasures of sense, or from the love of anything that is perishable. He must find some real good which would affect the mind singly, to the exclusion of all else, the discovery and attainment of which would enable him to enjoy continuous, su-

preme, and unending happiness. This found, he would lend a helping hand to others, so that they might attain like understanding.

This real and lasting good, Spinoza concluded, can only be experienced in love toward what is eternal and infinite, that is, God. Baruch Spinoza had been taught to love the Lord his God with all his mind, soul, and strength. This, Benedict Spinoza did not forget. But the God of Benedict could not be a being with emotions and changing moods, such as are sometimes ascribed to God in the Old Testament. Baruch had learned that God is infinite and eternal. For Benedict such a God must be a being of mathematical necessity and scientific law, the only kind of God compatible, as he thought, with modern knowledge. All who have studied mathematics and felt the aesthetic and almost mystical joy that comes from understanding the logical symmetry and necessity of rigorous demonstrations can form some notion of what Spinoza has in mind. If a man can identify himself with God conceived of as the substantial underlying reality of all the processes of nature, which never has changed, and never will change, he will possess an inward peace of mind which the world cannot give and cannot take away. In this purely "intellectual love of God" conceived as the logical ground of the mechanical laws of nature, Spinoza found his salvation. He built his religion upon the science of his time as he understood it. Spinoza is not a mystic in the sense of a man who believes that he has received revelations when in states of trance and ecstasy; he is a sternly logical and mathematical thinker. However, his rigorous thinking leads him to a calmly intellectual serenity and contentment in an eternal system of laws similar to those of mathematics. This is Spinoza's God. If Novalis is justified in calling him "the God-intoxicated man," it is because he succeeded in gaining inward peace and happiness through a philosophy centered in God. Only in this sense can Spinoza be called a mystic. Yet he was a deeply religious man.

Spinoza's method of philosophical investigation is similar in a general way to that of Descartes. Clear and distinct ideas are true; confused ideas are inadequate or false. Reasoning proceeds in a chain of propositions, with the highest certainty found in intuition. For Spinoza, however, God is not merely a guarantor of the truth of clear and distinct ideas, and the knowledge of the existence of one's self is not more immediately given than that of God. The latter is the most certain knowledge that we have, and all else, so far as is possible, should be derived from God, or at least be considered in the light of God.

His most important book, the *Ethics*, is written in the manner of a treatise in geometry, beginning with definitions, axioms, and postulates, and proceeding through successive theorems, to which notes (scholia) are added. This is his method of exposition rather than the manner in which he actually did his thinking. As he also wrote an account of the philosophy of Descartes (which he did not altogether accept) in the same form, he evidently did not regard this mode of presentation as absolute proof. He is supposed to have chosen it for several reasons. It presents his thought in a purely impersonal manner, devoid of emotion and prejudice on his own part, and unlikely to arouse such feelings in his readers. The latter are forced to pay close attention to the meaning of every term and to the logical links between one proposition and another. Spinoza is not obliged to make digressions in response to alternative positions and possible objections; to these he could reply in his correspondence, and keep his book itself free from more or less irrelevant material. It cannot be said, however, that this geometrical method of exposition was successful. The argument is too condensed. Only extensive research by many scholars has at last made his thought clear. The student of the *Ethics* today should read it in connection with one or more of the excellent commentaries which are now happily available.

Spinoza distinguishes three kinds of knowledge,—*opinion*, *reason*, and *intuition*.² Under the head of *opinion*, he places the ordinary observations of the senses given in experience; these lack scientific exactitude, and are fragmentary and confused. Here also come information by way of hearsay and tradition, and memories of past experiences which have not yet been classified by the intellect and understood; such knowledge is likely to be inaccurate. Again, after we have read or heard certain words or symbols, we remember things more or less accurately and form ideas about them. Thus on hearing or reading the word "apple," one has a mental image or picture of the fruit. A soldier seeing the tracks of a horse in sand will form a mental picture of a horseman, then of war; while a countryman will from the perception of a horse proceed in his imagination to thoughts of a plough and a field. So under opinion Spinoza classifies sense perceptions, images aroused by association of ideas, memories, words, symbols, and information transmitted by tradition. As a rationalist, Spinoza finds such knowledge unreliable, and likely to be erroneous.

He has absolute confidence, on the other hand, in *reason* and *intuition*. *Reason* is possible because we have certain ideas in common with all other men, since our minds and bodies and theirs have some of the same characteristics. So we can gain adequate ideas of the causes of things from their effects, prove propositions by the methods of geometry, and derive conclusions from the premises of a syllogism. The third kind of knowledge, *intuition*, Spinoza says in the *Ethics*, "proceeds from an adequate idea of the absolute essence of certain attributes of God to the adequate knowledge of the essence of things." Almost every word in this definition has a technical significance for Spinoza; its general purport is that if one knows anything through and through he will understand it in its ultimate nature and necessity, which of course for Spinoza is some aspect of God. Our minds so far as they perceive things truly are part of the

infinite intellect of God; and our clear and distinct ideas are as necessarily true as the ideas of God.³

Spinoza gives us an illustration of these three kinds of knowledge. Suppose we are faced by the problem of finding a fourth number that will bear the same relation to the third that the second does to the first. A tradesman might immediately give the correct answer because he had once memorized the rule without any proof, or because he had learned how to do it by experiment. His knowledge would be based on opinion; he could not demonstrate its validity. A better educated person would recall the proof of the nineteenth proposition of the seventh book of Euclid, and the general property of proportionals. This would be the method of reason. If, however, the numbers were simple, anybody could arrive at the right answer by intuition, as in the instance $1 : 2 :: 3 : ?$. Anyone can see intuitively that the fourth number is 6, because he grasps the ratio that the first number bears to the second. So at least a little intuitive knowledge is available to everyone. With an implied reproach for Descartes, who thought intuitions numerous and constantly made use of them, Spinoza remarks that "the things which I have been able to know by this kind of knowledge are as yet very few."

Causation for Spinoza is conceived mathematically: just as in the definition of a plane triangle there is the logical necessity that the sum of its three interior angles shall be equal to two right angles, so everything necessarily has some logical ground. For every fiction that we can imagine, there is some necessary reason why it must exist or why it is impossible. The wider our knowledge, the oftener we can determine what is necessary and what is impossible; to the infinite mind of God all is thus known, and all that exists follows inevitably from His very nature like the propositions of geometry from the fundamental axioms, postulates, and definitions. All that exists is necessary; everything that does not exist is impossible.

III. GOD AND HIS ATTRIBUTES

Descartes had defined substance as "an existent thing which requires nothing but itself in order to exist." Spinoza virtually accepts this definition, and shows that such a being must be the ground and cause of its own existence; it must be infinite, else it would be dependent upon something else; two such substances could not exist, since if they did each would be limited by the other and so not really be infinite; hence there can be only one infinite, complete, all-embracing and self-sustaining substance. This substance is therefore the one fundamental reality in the universe. It is eternal, since if it were not it would be preceded and produced by something else and not be self-sufficient. It must be perfect and complete, else it would be finite and limited. Being perfect, it can never change, since change would be a transition to something not perfect. This Substance is thus seen to be Nature or God; *the three terms, Substance, Nature, God, denote the same Being.*

Spinoza advances four arguments for the existence of God.⁴ These are all reminiscent of Descartes, although somewhat differently stated, partly to harmonize with Spinoza's general system and partly in consequence of the influence of thoughts and modes of expression which he had inherited from medieval Jewish philosophy.⁵ Back of Spinoza's arguments lies his confidence in the truth of clear and distinct ideas that are free from contradiction. His first argument is the *ontological* argument; the conception of God as infinite substance is a clear and distinct idea, and as such, and being infinite, it cannot lack one of the qualities of infinitude, namely existence. This conclusion is supported by the second argument, which points out that the conception of God involves no logical contradiction that would make his existence impossible; what is not impossible must exist. The third argument urges that our own existence as finite beings who have not produced ourselves, and cannot have been produced by other

finite beings *ad infinitum*, necessarily leads to an infinite being who is the cause and ground of its own existence. Fourthly, an infinite being would necessarily have infinite power and so be able to produce and maintain its own existence.

These arguments do not escape the criticisms that have been directed against those of Descartes. The idea of an absolutely perfect being does not necessarily imply its existence. A mere idea is not proved to exist by the fact that it does not contain any logical contradiction. A universe of finite beings extending infinitely in time and space is not inconceivable without supposing the presence of a single infinite being. A mere idea, even that of an infinite being, would have no power at all to bring either itself or anything else into existence. However, it would not be fair to reject Spinoza's conception of God merely because his proffered proofs are insufficient. As we follow his conception further, we shall find it suggestive in many ways, and profoundly impressive.

Since, for Spinoza, there is but one substance in the universe, and that is God, he regards mind and matter, or more technically thought and extension, as *attributes* of God. An attribute, he defines, in the beginning of the *Ethics*, as "that which the intellect perceives as constituting the essence of substance." Most authorities take him to mean this statement in a realistic and not an idealistic sense; substance actually has these attributes in its own right, and our intellects discover this, because it is true, independent of our discovery of it. Since God is infinite, He must have an infinite number of attributes, but thought and extension are the only two known to us. Each of these attributes is "infinite after its kind," but not "absolutely infinite" like God. That is, extension is infinite, and it is limited only by extension; it cannot be affected by thought. Mind likewise is infinite in its own right, and cannot be affected by matter. Thought and extension are not things or substances; they are merely

attributes of the one substance, and have their existence only in this substance. At bottom, in their common substance, they are identical.

Spinoza means that God—nature, the universe, substance, call it what you will—is at once both mental and material; it extends infinitely in space as something physical; it also is infinite as something mental; the mental can have no effect on the physical, and the physical can have no effect on the mental. Spinoza's view is universal *parallelism*, as opposed to the interactionism of Descartes and the occasionalism of Geulincx and Malebranche. It is like Hobbes' materialism insofar as it asserts that everything that exists is material, but it is unlike Hobbes in maintaining that everything is equally mental. Spinoza's doctrine is *panpsychism* (Greek, *pan*, everything, *psyche*, a soul) to the extent that it asserts that everything in the universe has a mental side; Spinoza does not, however, claim that each separate bit of inorganic matter has more than a very undeveloped form of mentality; it is not conscious, and does not perceive, feel, imagine, remember, and think.

God as infinite substance with infinite attributes has none of the ordinary characteristics of a man. He is a great mathematical and mechanical system on the physical side—the whole of nature—and He acts in accordance with the laws of mathematics. He is eternal, like geometry. Since when did the sum of the three angles of a triangle begin to equal two right angles, and when will they cease to do so? Such questions are meaningless; the principles of geometry are timeless and eternal. God is not the creator of the world at any particular moment in time, any more than the axioms and postulates of geometry have at any particular time created the theorems; the principles of extension inhere in God as their timeless and eternal ground. God is the *immanent* cause of the world in the sense that He is its logical ground or substance; He did not make the world; He simply *is* the world. Yet God is also mind; He is conscious and finds

intellectual delight in His own mathematical and logical perfection; this is part of what Spinoza means by saying that God loves Himself.

God, being perfect, and all-inclusive, can have no emotions and passions such as we, who are affected by things external to us. Being all, there can be nothing for Him to desire, so He can have no purposes, no plans that He wishes to carry out, and so no will. We reason in order to discover what we do not already know; God, who knows all, has no need for this, and so He has no intellect in the human sense. Things that we desire we call good, and things to which we have aversion we call bad; for God, who has no desires or aversions, there can be no moral worth. It is foolish for us to think of God as having created anything for the benefit of men, or having set aside the laws of nature and performed miracles on their behalf. Good, evil, beauty are inadequate human values, and are not characteristic of God as He really is.

One can see why the Jewish and Christian fundamentalists of Spinoza's own time called him an atheist. He seems to deny the existence of a Deity who loves and cares for man, to whom man can pray, and from whom he can receive assistance. We shall later see Leibniz attempt to develop a philosophy, also derived from Cartesianism, that makes more room for ordinary religious aspirations. Yet it is equally evident that in his own way Spinoza believes in God, and derives inward peace of mind from his faith.

What Spinoza has done should now begin to be clear. Baruch had been taught that God is one, the ultimate ground of everything. He had also studied science and learned that the universe is a complete mathematical and physical system grounded in uniform laws. Benedict, seeking his own salvation in his time of sore trouble, must needs turn to God. But God can exist only in the real universe, which has been disclosed by mathematics and physics. Like Bruno in the previous century, Spinoza bravely sought to base his religion

on science and to find his God in the laws of nature, so he revised his conception of God to make it conform with those laws. Spinoza's view of God is not really atheism; it is rather *pantheism* (a word that in his time had not yet been coined), the view that God is all and that all is God. Pantheism, although unorthodox, is very different from atheism.

For Spinoza, God and His attributes are, as we have seen, infinite, eternal, and unchangeable. God is the universal substance, the ultimate ground and essence of everything mental and physical. Reviving a scholastic term, Spinoza calls God, thus conceived, *Natura naturans* ("nature naturating," the active participle), that is, nature bringing the separate things in the world into existence: these latter are *Natura naturata* (the passive participle), particular things as we know them, separate from one another, and transitory in duration; they, too, are God. Can Spinoza show the way that God as *Natura naturata*, the world of changing and particular things, arises from God as *Natura naturans*, the one eternal and unchanging substance? It must be confessed that Spinoza does not make this very clear. It is easier, if one believes in an absolute monistic philosophy, to argue that all the separate things in the world are fundamentally and eternally one in their ultimate nature than it is to turn about and show how the ultimate unity has become individuated into the many things of our actual universe. Hegel says that Spinoza's God is like the lion's den in Aesop's fable; one can see the tracks of all the animals going into the den, but none of any coming out! However, it is hardly fair to find much fault with Spinoza for this reason. No philosopher has ever succeeded in solving the problem of how the many can rise from the one, or how changeless eternity produces transient time. And philosophers diametrically opposed to Spinoza—like Bergson, for instance—who "take time seriously," and claim that fundamentally the world is change and motion and a plurality of things, have a great deal of trouble trying to explain how in such a universe there can be timeless

universals in logic and mathematics and so much unity in other ways as there actually is.

IV. MODES

Spinoza attempts to derive the many from the one and the changing from the eternal by a doctrine of *modes*. There are *infinite* modes and *finite* modes. A *mode* Spinoza defines as a modification of substance, which exists in, and is conceived through, something other than itself. The world of modes is of course the *Natura naturata*. God, as substance, in the attribute of extension, has the *infinite immediate mode of motion and rest*. That is, everything in the world, as something material, is either in motion or at rest, and the total aggregate of motion is never either increased or diminished, while particular motions vary at times and places. Matter as broken up or individuated into different objects appears in the infinite *mediate* mode of "the face of the universe" (*facies totius universi*), that is, the chain of natural events of the physical world, which constitute a universal system of causally interconnected events. God as substance in the attribute of thought has the infinite immediate mode of intellect, which Spinoza also sometimes calls the "infinite power of thought," or the "idea of God"; it is not clear just what is the infinite mediate mode in which this is individuated, but it may be, as Martineau suggests, the "constant form of reasoned thought or necessary logical laws"; at any rate, it is whatever on the mental side forms the parallel to causally interconnected events on the physical side. All this, it must be confessed, is rather vague, but somehow through these infinite modes the one universal substance takes the form of the ordinary objects of our everyday lives.

Finite modes are ourselves, plants, animals, sticks, stones,—every particular "thing" in the world. Every such thing inheres in the universal substance, and the two attributes of thought and extension. That is, *everything is both mental*

and physical at the same time. My mind is the idea of my body; my body is the physical counterpart of my mind; at bottom they are one and the same thing. Spinoza's own illustrations are a little difficult, for instance, that a circle and the idea of a circle are one and the same, differing only as we think of the circle as physically existing and as mathematically defined. Let us make up an illustration for ourselves. Look at a hollow sphere, say a child's rubber ball, mostly brown in color, but with one yellow stripe running around the center. That stripe appears to us convex. Now if the rubber in the ball is thin enough so that the yellow paint shows through, that same stripe is concave when viewed from the inside of the ball. Yet there is only one stripe, with the two attributes convex and concave. To change the illustration, suppose that you look at a pen, pick it up, and begin to write with it. To you the whole process is mental; you had a perception of the pen and also a thought of something that you wished to jot down, so you proceeded to the further experiences of holding the pen in your hand and writing with it. I, who observed you do this, saw certain physical events, and with the aid of science I infer others. From my point of view, rays of light reflected from the pen upon the retinae of your eyes stimulated a nerve current to run up from your eyes to your brain, which there flowing into another current (the physical counterpart of the thought you wished to jot down) initiated an impulse that ran down your motor nerves to your hand, which picked up the pen and began to write with it. The mental series of events experienced by you and the physical series of events observed or inferred by me are in reality identical. You observed them from within, in what we may call their "concave" aspect, while I took note of their "convex" aspect.

This doctrine of *psycho-physical parallelism*, sketched in the preceding paragraph, has been favored by some modern psychologists. It avoids the difficulties of Descartes' interactionism. The mental and physical series are each complete;

no event in either is the cause of any event in the other. It makes it possible for a specialist to confine himself to the study of either series, and to ignore the other. There are, of course, various objections to the doctrine. It contradicts common sense, and seems highly artificial. At many points nothing parallel to one series is actually observed in the other, and the assumption of its existence is purely a matter of inference. Moreover, this view tends to make us think of the mind too mechanically; after all, we actually do have interests, purposes, plans which we endeavor to carry out; among the objects spread out before our eyes our minds select those to which we attend. Possibly all physical events are wholly mechanical, as Spinoza supposed; nevertheless our conscious life, far from being mechanical, is really selective and purposive; so mental processes cannot in all respects be thought to be parallel to a physical series. Such are some of the difficulties in parallelism. Nevertheless it is one of the famous theories of the relationship between the mind and the body, still favored by many, and Spinoza made an important achievement when he advanced it.

Let us follow Spinoza's parallelism further. Everything in the world is both mental and physical. The less complex the structure of matter, the less developed is the organization of mind, and conversely. A stone is relatively simple in its physical and chemical constitution; on the mental side Spinoza would say it is equally undeveloped. Plants and the lower animals rise in mental capacities with their increasing physical complexity. You and I have ideas corresponding to our bodily states. We can perceive no object mentally unless our sense organs and brains are in the requisite relationship to it physically. Erroneous sense perceptions, illusions, and hallucinations are the concomitant of imperfect physical adjustments; our ideas thus formed are, as Spinoza would say, *inadequate*. We can reason and obtain intuitions only of what on the mental side corresponds to our bodily states. We can, however, know much about the external

world, because other things are to a large extent similar to our bodies; all matter, for instance, is subject to the same physical, chemical, and mathematical laws; so some universal principles are knowable by us. If we confine ourselves to clear and distinct ideas, we shall make no mistake; on the other hand, our ideas are necessarily confused regarding anything with which our bodies are not in adequate adjustment.

In one sense we see that Spinoza is right on this point, and that he furnishes a sound guide for scientific and philosophical investigation. For, after all, when you see a pen and pick it up, what you perceive is not a state of your own brain, but something external to your body. To be sure, you could not perceive the pen if it were not for the condition of your brain; Spinoza affirms this justifiably. Yet what you perceive through the medium of brain action is something external to the brain. Spinoza's rationalism is illuminating, but it does not solve all the problems of epistemology (the science of knowledge).

V. HUMAN FREEDOM AND SALVATION

As a thorough going mechanist, Spinoza naturally does not believe in the freedom of the will in the sense of indeterminism. Every event that ever occurs takes place with mathematical necessity. When we are unaware of external conditions and are conscious only of our own mental and bodily states, we imagine that our actions are free; just as a stone, if it were conscious only of its own internal states, would suppose itself to be deciding by its own volition the course which it follows when thrown up into the air.

On the other hand, there is for Spinoza a very important distinction between *human bondage* and *human freedom*. So long as our desires are turned in the direction of finite and transitory things which cannot permanently satisfy, we are in bondage to external circumstances and are the victims of events. We are the slaves of our emotions and passions and

confused ideas, which owe their origin to causes outside our control. We can free ourselves from such bondage by thinking clearly and distinctly. Let us see how we can do this. Nothing distresses us if we realize its inevitableness; which latter we can do if we think rationally, that is, clearly and distinctly. To use our own illustration of what Spinoza seems to mean: your friend had to die, his disease was incurable, nothing you or anyone else could have done would have saved him; once you see that the outcome of such an event is as much a matter of necessity as that the product of two and two is four, you no longer grieve about it. If you can bring yourself to contemplate every event *sub quadam aeternitatis specie* (as it were under the aspect of eternity) and to realize that it is part of a system of events as absolutely determined as the products in the multiplication table, you will no longer be troubled about it; you will be free from emotional distress.

Human freedom, then, is simply a matter of accepting the universe because you understand its mathematical necessity. This done, you will gain peace of mind, be free from passions, and able to return good for evil. It was with this philosophy, no doubt, that Spinoza became reconciled to his own excommunication from his people; he saw that it was inevitable that the rabbis could never understand him, so he could freely forgive them and cease to mourn the consequences of their action; and we may suppose that in this way he finally reconciled himself to the irrationality of the mob who had murdered his friends, the brothers De Witt, when they were trying their best to preserve the liberties of Holland. This kind of philosophy must have helped Spinoza to gain serenity of mind, and to escape the paralysis of corroding grief over events that were not in his control. When we come to his political philosophy we shall see, however, that Spinoza does not counsel oriental passivity in regard to future events which we may be able to influence.

VI. SOCIAL PHILOSOPHY

As compared with Hobbes, to whom he is chiefly indebted in what we should call his ethics, as well as in his political philosophy, Spinoza at times is, if possible, even more emphatic in his assertion of egoism and naturalism. However, his thought passes rapidly beyond such positions to a more social and spiritual standpoint. Moreover, Spinoza gives his social philosophy a more definite setting in his metaphysical system as a whole than Hobbes was able to do. The result is that, while Spinoza's social philosophy is less rigidly consistent than Hobbes', it is broader and more adequate in its outlook.

For Spinoza, the impulse or endeavor (*conatus*) to persist in its own being, or the law of self-preservation, is characteristic of everything in the universe. Man is simply an instance. (This is an illustration of Spinoza's success in fitting his ethics into his system as a whole.) Man desires any object that favors this impulse and leads him to a higher state of *perfection*, calls it *good*, and finds the feeling that accompanies the transition to such a higher state *pleasant*.

Three points should be noted here. First, we call objects good and find their attainment pleasurable because we desire them; we do not desire them because they bring pleasure; so Spinoza is definitely not an hedonist. Secondly, in Spinoza's account the desire for mere self-preservation, or, at most, increased power and domination, soon becomes transformed into a desire for increased "perfection," or, as we might say, all-around development; Spinoza is really a forerunner of nineteenth century self-realizationism. Thirdly, while Spinoza begins with strict egoism as the primitive state of man, he urges that each man ought to consider his own well-being *rationaly*, that is, *virtuously*, and that if he does so he will quickly understand that nothing will so much further his well-being as a life in a well-ordered society where all men have equal aims and are "moved as it were by one

mind." So a virtuous man will desire nothing for himself that he does not wish for others as well. Another line of thought that leads Spinoza to a similar conclusion is that love and joy are marks of well-being and increased perfection, while envy, hatred, and jealousy are debasing; a man in his own interest should cultivate the former and overcome the latter. "He who lives under the guidance of reason, endeavors, so far as possible, to render back love, or kindness, for other men's hatred, anger, or contempt toward him." ⁶ So we may say that, although Spinoza's ethics begins with egoism, it terminates in altruism. The supreme goal of human perfection, the highest good, for Spinoza, as we have already seen, is at once scientific and religious,—knowledge of ultimate reality, which is God, and the accompanying intellectual love of God.

The first fifteen chapters of Spinoza's *Theological-Political Treatise* constitute a refutation of the view, held by many in Holland and elsewhere at the time, that the state has its origin in divine institution, like the Jewish theocracy in the Old Testament, and that it derives its authority from the will of God and so may properly regulate human conduct in every respect, including the expression of opinions in science, philosophy, and religion. Spinoza shows, on the contrary, that the Hebrew political institutions described in the Bible were only intended for the ancient Hebrews themselves. He proves that the whole five books of the Law could not have been written in their present form by Moses, and he suggests that they were probably compiled by Ezra. He explains the miracles rationally, as natural events. He calls attention to the fact that the message of each prophet is colored by his own individual disposition, temperament, and personal opinions, and that the style in which it is written is characteristic of the man himself. Being designed primarily for a particular people, and only secondarily for the human race, the contents of the Bible are necessarily adapted to the understanding of the masses of the people. The Bible accord-

ingly does not teach science, and it can be considered as the Word of God only insofar as it affects religion. Its teachings of universal application are simple matters of faith—such as the unity and omnipresence of God—and of conduct—such as the duty of loving one's neighbor as one's self and of repentance for sins.

Spinoza's discussion of both Old and New Testaments is reverent, and displays earnest religious convictions. Similar sentiments expressed by a Christian or Jewish professor of theology today would seem almost commonplace. Spinoza, however, was the first philosopher who had dared to speak so unreservedly on such matters, and the publication of this book in Latin in 1670 aroused such a vigorous controversy that he did not think it prudent to allow a translation to appear in Dutch. Hobbes is reported to have been astonished at the frankness of the book, and to have refused to commit himself regarding its merits, which he no doubt appreciated. On many points of Biblical higher criticism, Spinoza anticipated the German scholars of the early nineteenth century.

Having thus shown that modern political states are not of divine origin, and cannot claim to rule on the authority of the Bible, Spinoza proceeds in the *Theological-Political Treatise*, as well as in his subsequent *Political Treatise*, the latter of which was incomplete at the time of his death, to set forth his own political philosophy. Like Hobbes he believes that in a state of nature each man would have a right to everything that lay within his power, that this would be a state of universal fear and confusion, and that to escape it men have voluntarily formed states. As in the case of Hobbes, it is hard to tell how far Spinoza believed that the primitive state of nature and social contract were historical events. He differs from Hobbes in insisting less strongly that the social compact, when once formed, can never be abrogated without falling back into a state of nature. He presses the point that such a compact is made valid only by its utility, and that without utility it becomes null and void. A sovereign's right

continues only so long as he can maintain his power by enforcing his will, and this he will not be able to do unless he acts in accordance with the best interests of his subjects. He believes a democracy to be "of all forms of government the most natural, and the most consonant with individual liberty." ⁷ Irrational commands are unlikely in a democracy, since it is almost impossible that the majority of the people should agree in an irrational design, and he who obeys such a state is free, since he is living under laws that are rational and designed for the common good. (Here Spinoza may seem to some of us rather optimistic.)

Alliances between states are binding only so long as it is to the advantage of each to keep them; indeed, no ruler ought to abide by his promises to the injury of the interests of his dominion. (This is at least honest political realism.) Unfortunately Spinoza did not live to write the chapters of the *Political Treatise* which were to have presented his theory of democracy in detail. That book, however, does contain chapters on Monarchy and Aristocracy, in each of which a balance of powers is constitutionally defined. It is interesting to note that in his scheme of a monarchy, even the king must obey the laws as interpreted by the courts; the state is not to maintain any temple of religion, but a group may do so for themselves; all real estate is to be owned by the state, and the rentals are to pay the entire expense of the government. Holding such views, we can understand why Spinoza felt that he would put himself in a false position if he accepted a pension from Louis XIV!

The secular rulers of a state, Spinoza maintains, have supreme authority in all matters of law, including the "outward observances of piety and the external rites of religion." In regard to such matters the ecclesiastical heads must obey the secular authority. Spinoza here is resisting the effort of the preachers and synods in Holland to assume the role of ancient Hebrew prophets and in the name of the Lord issue commands to the government. (Calvinists in Geneva, Hol-

land, Scotland, and New England sometimes attempted to do this in the sixteenth and seventeenth centuries.) As against both the secular authorities and the churches and synagogues, Spinoza insists that the inward worship of God and piety in itself are within the sphere of private rights; no surrender of them is implied in the social contract. Freedom of speculation and publication is the right of all scholars. Such freedom is absolutely necessary for progress in science and the liberal arts. "No one the whole world over can be legislated into a state of blessedness." "The true end of government is liberty." "Laws directed against opinion affect the generous minded rather than the wicked, and are adapted less for coercing criminals than for irritating the upright." Spinoza anticipates the spirit and some of the arguments of John Stuart Mill's essay on *Liberty*. This was a brave stand to take at a time when freedom of thought and publication were not yet recognized in principle by rulers anywhere. Two decades later, after the Revolution of 1688, such freedom was largely gained in England, and Locke could write in defense of religious toleration as the policy of his government.

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CHAPTER VII

LEIBNIZ

I. INTRODUCTORY

Gottfried Wilhelm Leibniz¹ (1646–1716) spoke of “perennial philosophy.” He believed that philosophy lives and grows from one age to another. He said that each philosopher has for the most part proved to be right in what he affirmed, and that when he has been at fault it has usually been in what he has failed to see and so denied. The story goes that on one occasion he made use in a conversation of a figure of speech natural to an official in a ducal court, and observed that the philosophy of Descartes is found in the antechamber of the court of truth. He was asked if his own philosophy prevailed in the innermost secret cabinet of the court. He replied that between the cabinet and the antechamber is the audience hall of the ruler; he would be satisfied if his philosophy could be regarded as belonging there; he could not pretend to have solved all the ultimate secrets of reality. The story is characteristic of Leibniz’ moderation and good sense, and it rightly indicates his place in the history of modern philosophy. He marks a decided advance beyond Descartes, in a different direction from Spinoza. On the whole he is to be regarded as the last great philosopher of the Renaissance, although he has some of the ideas of the Enlightenment, and indeed, in the *New Essays on the Human Understanding* he even passes in some respects beyond the Enlightenment. When this book was finally published in 1765 it did much to prepare the way for the revolution in philosophy that Kant was to inaugurate in 1781. Moreover, in his views of the relativity of space and time, and in

his interest in symbolic logic, as well as on many other points, Leibniz would feel himself quite at home among the philosophers of the twentieth century.

Leibniz' father, professor of moral philosophy in the University of Leipzig, and a prominent lawyer in the city, died when the boy was six years old. The father must have left the family in good circumstances, as Leibniz his life long seems to have enjoyed independent means, and to have been able to do much as he pleased, a fact which throws a certain light upon his career. More fortunate in this respect than Spinoza, he did not have to work at a trade to make his living. One important inheritance was his father's library, in which after he was ten his mother allowed him to educate himself with comparatively little formal instruction. In consequence he quickly became proficient in Latin and Greek, and found delight in Cicero, Quintilian, Seneca, Pliny, Herodotus, Xenophon, Plato, and the church fathers.

When only fourteen the young Leibniz entered the university at Leipzig, where he studied law and philosophy and wrote a Latin dissertation upon the principle of individuation, a subject in which he remained interested throughout life. When twenty years old, although he had completed all the requirements, the university at Leipzig refused him the degree of doctor of law (*juris doctor*) on account of his youth. The university at Altdorf, on the contrary, was not afraid of brilliant young men, and not only at once conferred the degree, but also offered him a professorship. This latter he declined, since he wished to lead a more active and independent life. By this time he had already written *De arte combinatoria*, which with subsequent studies entitles him to be regarded as one of the founders of modern symbolic logic, as well as an essay on methods of teaching which is said to contain the first clear recognition of the historical method in the study of law.

In 1667 Leibniz entered the service of the elector of Mainz, at first assisting in the revision of the statutes, and

afterwards in political matters. He wrote a paper to support the claims of the German candidate to the throne of Poland by means of a logical demonstration. This was a failure; political issues are not often settled by logic. He next tried to save Germany, which had barely survived the Thirty Years War, from further molestation by Louis XIV by diverting the attention of the latter to a project for the French conquest of Egypt. The suggestion sufficiently interested the French ministry to cause Leibniz to be invited to Paris; but nothing came of it in the end; Napoleon was to be the first French ruler to try to conquer Egypt. Leibniz' sojourn in Paris at this time, as well as a short visit to London in the service of the elector of Mainz, enabled him to become acquainted with many of the greatest philosophers and scientists of the time, and stimulated his studies in many directions; he made contributions in logic, physics, mathematics, law, and theology, and also invented a calculating machine for adding, subtracting, multiplying, dividing, and extracting roots. He was elected to the Royal Society at London and to the Academy of Paris.

In 1673 he entered the service of the House of Brunswick (or Hanover), by whom he continued to be employed for the rest of his life, during which he resided at Hanover but made prolonged visits to other cities in which he combined official duties with scholarly investigations and came in contact with all the great men of the period. On one occasion he visited Spinoza at the Hague and made a careful study of his philosophy.² His most continuous tasks in the service of the House of Hanover were the care of the ducal library, and a genealogical and historical account of the family, which he had carried down to the year 1005 at the time of his death. He was, however, from time to time engaged in more important political responsibilities, assisting, for instance, in the negotiations in consequence of which an elector of Hanover ultimately became King of England as George I. While the men of this family seem to have been too dense to take

much interest in philosophy, the women were more intelligent, and Leibniz received encouragement in his philosophical undertakings from the Electress Sophia of Hanover and from her daughter Sophie Charlotte, Queen of Prussia, for the latter of whom much of the material was written which afterward appeared in the *Theodicy*, published by him after her death and dedicated to her memory.

Leibniz was one of those men who think most effectively when in conversation or correspondence with others. In consequence, his philosophy is contained mostly in short summaries prepared for this or that person who had shown an interest, in articles prepared for journals, and in letters. Of the short summaries, the *Monadology* is the most important, and after that perhaps the *Principles of Nature and Grace*, and the earlier *Discourse on Metaphysics*. Of his two lengthy books on philosophy, the *Theodicy* contains his philosophy of religion, and the *New Essays* his revision of the doctrine of innate ideas to meet the attacks of Locke. Apart from his contributions to philosophy and mathematical logic, Leibniz is most famous for the discovery of the integral and differential calculus, which he made independent of Newton, and which more than Newton he brought to the attention of the mathematicians of his time. He also won renown as a natural scientist, historian, philologist, jurist, and theologian. Fortunately his manuscripts have been preserved at Hanover, and his complete works are being published by the Berlin Academy of Sciences in an edition that will consist of some forty volumes. He founded the Berlin Academy, and endeavored to establish academies along Baconian lines in other cities; but, as has been said, he was really an entire academy in himself, so wide was his grasp of the whole range of human knowledge in his time, and so important his own contributions to it.

The personality of Leibniz is revealed in his writings as a man of many-sided interests, with wide sympathy, tolerance, and a fair amount of humor. Characteristic were his

earnest attempts to reconcile the Catholics and the Protestants, and later, the Lutherans and the Calvinists; as a practical man he saw the harm that sectarian disputes had brought to Europe in the religious wars, and as a philosopher he sought to disclose the common principles on which sectarians would be able to unite if they could only forget their prejudices. Similarly in metaphysics he sought a larger point of view in which the truths of every philosophy would find their place. He was eager to recognize the merits of other philosophers and to learn from them, and yet independent enough to develop a highly original philosophy of his own. The great scientific advances of his time forced him to recognize the universality of natural laws and the mechanical view of nature, but he saw with equal clearness the uniqueness of individuals, the fact of human freedom, the place of purposiveness in nature, and the claims of religion. All of these aspects of reality he takes into account, and attempts to reconcile.³

II. IDEALISM

Hobbes had emphasized the mechanical view of the world almost exclusively, and had advanced a philosophy of materialism. Descartes had made mechanism supreme in the inorganic world and in plants and animals other than man, but he had reduced mechanism to extension, and had added another substance to matter,—that of thought,—in order to make room for the self-consciousness of man; both of these substances he had made dependent on God, but allowed them to interact upon each other. The Occasionalists had eliminated the interaction, and had made God the efficient cause of every event. Spinoza had come to the idea of only one substance, God, of which thought and extension were mere attributes; in so doing he had saved the fundamental unity of all things, but he had not succeeded in showing how the many things of the world of human experience

become individuated or differentiated from the underlying unity; moreover, he had had to remove all teleology or purposiveness from the world, and to suppress human individuality and freedom to an extent that contradicts our everyday experience. None of the preceding philosophers of his century seemed to Leibniz to have succeeded in showing satisfactorily the relations between one individual and another, or between the human mind and the body; he studied them all carefully, and learned from each what he could, but he became convinced that he must find new solutions for himself.

His work in mathematics impressed upon Leibniz the idea of *continuity*. There are no breaks in an infinite mathematical series; he concluded that nature is continuous in all its aspects. Matter, Leibniz' scientific studies convinced him, cannot be conceived as merely extended particles in space, to which motion is externally communicated, as Descartes had supposed. With a truly remarkable insight he saw that matter and motion are reducible to force or energy, and that it is *force* and not mere motion that always remains constant. Moreover, space and time cannot be thought of as absolutes, existing independent of the objects that appear within them. On the contrary, space is merely the arrangement of things that coexist, and time the arrangement of those that succeed one another. Space and time, in other words, are relative to objects, and not entities that exist in their own right. Material objects, to be sure, are observed by us in space and time as *phenomena bene fundata*, well-grounded phenomena; they are not illusions, or dreams, or phantasms, as comparison of scientifically tested experiences at one time and another makes evident. The fundamental reality underlying them is force, and that alone.

Force, moreover, is something that *we know best in our own inner experience*. Here Leibniz is probably thinking of Descartes, who had shown the priority in experience of the knowledge of our own selves in the *cogito ergo sum* argu-

ment. Knowing force in our own personal experience, where it is something *mental*, we may reasonably infer that force in the external world is *also mental in its real constitution*. The ultimate reality in the universe is therefore centers of force, and these are mental. When philosophical scientists of our own time, like Einstein, assure us that space and time are relative to events that move and change, and, like Eddington, tell us that matter has become reduced to "pointer readings" of changing events that are probably really mental in nature, they are reasoning in a manner not unlike that of Leibniz.

So the outcome for Leibniz is the affirmation of what we should now call a kind of *pluralistic metaphysical idealism*. The view is *pluralistic*, since all the centers of force for him are substances, each an individual in its own right, distinct from all the others. It is *idealism*, since these centers of force are mental in their nature, akin to our own inward life. It is of course a *metaphysical* view, rather than a strictly scientific hypothesis; it is an interpretation of the logical implications of mathematics and physics as Leibniz understood them, and not something that can be demonstrated by laboratory experiments. The method by which he has arrived at his position is *rationalism*, a logical analysis of scientific thought in its implications, and not empiricism based on a comparison of simple ideas in sensation such as Bacon had advocated and Locke (after 1690) made famous.

III. MONADS

To the substances, or centers of force, which for Leibniz are the ultimate realities of the universe, he gave the name of *monads* (unities), a term that had been previously used by Bruno, from whom Leibniz may or may not consciously have borrowed it. For Leibniz the monads are absolutely *simple* substances; they are not composed of extended parts, and so cannot be decomposed; they are therefore *indestruct-*

ible and *immortal*. (However, the supreme monad, God, has created the other monads, and can, if He will, annihilate them. It will be understood throughout this account that statements about the other monads do not apply to God, or to His relation to the other monads, except when God is explicitly mentioned.)

The monads differ *qualitatively* from one another. This follows from Leibniz' doctrine of *the identity of indiscernibles*; if two objects were exactly alike in every respect whatever, they would be identical. To popularize this statement, Leibniz maintained that no two different objects, not even two leaves from the same tree, if closely compared, will be found to be exactly alike. The monads do not differ from one another in any quantitative manner. The differences between the monads, which we saw are mental in their constitution, are due to their *individuality*; each reflects the universe from its own standpoint. To popularize this statement, Leibniz calls attention to the fact that a city may be seen from various perspectives, each of which is different from all the others, yet all correctly represent the city. Monads are subject to internal change; this is *perception*; each monad as a matter of *appetition* endeavors to perceive more clearly and distinctly, and its consequent attainment of a higher order of perception is attended by pleasure, so *pleasure* is defined as consciousness of increasing perfection; movement in the opposite direction is pain, and is a consciousness of lessened perfection.⁴

Although, in accordance with the principle of *continuity*, monads exist in all possible gradations, different types of monads can be distinguished. Lowest of all are the *bare* or *naked* monads, those of the inorganic world, whose perceptions are confused and devoid of memory or reasoning. Think of a person in a vertigo in which he turns around and around and cannot distinguish anything clearly; or of what it is like to be in a swoon or dreamless sleep, and that will give some notion of the perceptions of the bare monads.

We may think of such monads as in a condition of stupor. The present condition of every monad, however, is the outcome of the past, and contains all of its future within itself. An animal is a group of monads, of which the ones making up its body are much like the bare monads; these are grouped, however, about a central monad, its *soul* (*âme*). This soul monad, in addition to bare perception, possesses powers of memory, at least in the sense of association; show a dog a cane, and as a result of his previous experience he will whine and run. It is hard to determine whether Leibniz attributes more consciousness to animals than our psychologists do today; he certainly does not think of animals as mere machines, as Descartes did; on the other hand, he denies them reasoning powers.

Men, in addition to the capacities of animals, possess reason, and the monad that is a human mind is a reasonable *spirit* (*esprit*). Spirits reflect, are aware of their own selves, and can think of concepts like being, substance, the immaterial, and God, and so can become philosophers. In reasoning they employ the logical principles of contradiction and sufficient reason, which will be discussed later. Even we, however, by no means have distinct and adequate perceptions exclusively. Many of our perceptions are confused. When, for instance, we listen to the waves beating along the seashore, it must be that we confusedly hear each one of the separate waves, otherwise we could hear no sound at all; for a hundred thousand nothings cannot make something. The separate sound of each wave must be a *minute perception* (*petite perception*) which we perceive confusedly. This doctrine, that our ordinary perceptions are often confused aggregates of multitudinous *petites perceptions*, contradicts our present psychological doctrine of the threshold of sensations. However, Leibniz was one of the first to call attention to the fact that much goes on in our minds of which we are at most only confusedly aware; in some ways he is a forerunner of contemporary doctrines of the subconscious and

unconscious nature of many mental processes. His own use of the doctrine of minute perceptions is primarily to make plausible the continuity of development in different types of monads.

The supreme monad is God. He alone of all monads is self-existent, and He is the creator of the rest. Only He is pure spirit, and has no body composed of other monads. He is infinite, eternal, absolutely wise and good. He is the source, not only of all that exists, but of all that is possible. He is absolutely powerful, except that He has to choose between possibilities that are mutually incompatible. God is therefore the primitive unity or original simple substance from which all other monads are creative products; they are generated by continual "fulgurations" of the Divinity (an expression that seems to suggest that they are emanations from God somewhat in the sense of Plotinus, who thought of the world emanating from God as light from the sun, yet leaving the sun's potency undiminished, but Leibniz is not clear upon this point). God is Power, the source of all; He is Knowledge, containing the details of ideas; He is Will, which generates changes in accordance with the principle of Optimism, producing the best of possible worlds. Leibniz' proofs of the existence of God, based upon principles in his theory of knowledge, will be discussed later.

IV. PRE-ESTABLISHED HARMONY

God has adapted all the created monads to one another, so that each implies the others and is a living and perpetual mirror of them. Each monad other than God is a different perspective of the entire world. It of course is able to represent distinctly only that small part of things nearest or in most relations to it; the rest of the details of the universe it represents confusedly. Yet all the monads mirror the same world, and differ only in the distinctness of their perceptions. The world is a plenum, with all its matter so connected

that the smallest movement of anything has an effect on other bodies in proportion to their distance from it. So every monad feels all that there is in the universe, but even a spirit can read in its perceptions only what is distinctly represented in them.

The perceptions within the soul of an animal are more distinct than those which constitute the monads of its body. There is, however, a harmonious relationship between the perceptions in its soul and those in its bodily monads. A monad is active insofar as it possesses perfection and has distinct perceptions, and passive insofar as it is imperfect and has confused perceptions. In a monad that is more perfect than another we can find out what accounts for what takes place in the other, and we suppose that it acts upon the other; so we think of the soul monad of an animal acting upon its bodily monads. In reality no interaction takes place except through God, and this in a manner quite different from that supposed by the Occasionalists. God created all the monads with identical contents, and differing only in the clearness and distinctness of their perceptions from their various perspectives. The continued development of each monad proceeds in accordance with the same laws. So God has created a pre-established harmony between the monads, rendering every monad in agreement at all times with the rest.

Let us paraphrase rather freely Leibniz' comparison of his conception of the pre-established harmony with earlier theories of the relationship between the mind and the body, in which he made use of the familiar illustration of the two clocks, one of which is the mind and the other the body. Suppose these two clocks keep time together perfectly. This may mean that the clockmaker (God) has created the two clocks with a perfect mechanical connection between them, so that any change in one is at once accompanied by a corresponding change in the other, with the result that the two clocks always agree. This, Leibniz says, would roughly corre-

spond to Descartes' theory of interaction. Or suppose that the clockmaker continually changes the hands of one clock to make them correspond to the other. This would be Occasionalism. Or, thirdly, suppose that the clockmaker has manufactured the two clocks so perfectly that each will thereafter always keep time with the other without any connection between them; that is Leibniz' own theory of pre-established harmony. [If one wishes to bring Spinoza's parallelism into the illustration, this might be done by supposing that in reality there is only one clock with two faces.] Leibniz did not mean his adaptation of the clock illustration to be taken too literally. The body, for him, does not consist of one, but of many monads. All of these monads have far more confused perceptions than the soul monads. The correspondence consists in the fact that all of the perceptions of all the monads at all times, however much they differ in point of view, and in clearness and distinctness or confusion, are at bottom identical in content. The same world is reflected in them all,—the world of the monads.

V. PANPSYCHISM

Leibniz believes, as we have seen, that the world consists of an infinity of living monads in continuous grades of development. This is a form of panpsychism. What we think of as dead matter is really composed of living monads that we are unable to perceive distinctly. The discovery of minute organisms under the microscope in what had previously been thought to be absolutely dead matter, Leibniz welcomed as evidence confirmatory of his belief. He concludes that every particle of what we confusedly perceive as matter is in reality a little world of living beings, analogous to a garden of plants or a pond full of fish. Pushing the argument still further, he decides that every tiny particle of every such microorganism is in turn a still more minute garden or pond, and so on *ad infinitum*.

All living bodies of plants and animals are in perpetual flux, like rivers, with their particles continually coming and going. Yet a soul or spirit changes its body only gradually, and no such being is entirely separated from a body, with the single exception of God. There is no complete generation or death, except as God may choose to create or annihilate a universe. What we call generation is merely enlargement or accretion, and what we call death is a diminution. Leibniz here builds upon the doctrine of preformation held by the biologists of his time; *i.e.*, within the original germ all the parts of the future adult plant or animal are contained in miniature form, and embryonic growth is merely an enlargement of minute parts. Death, he thinks, is merely a breaking up of the organism again into such parts, each of which contains the whole in a miniature form, and so is capable of again becoming enlarged by generation into an organism of enough bulk to enable us to recognize it as such. There are, he thinks, a few cases in which an animal of one species passes into another, as when worms become flies and caterpillars butterflies; but such cases are rare, and only a small number of the elect among animals pass to a greater theater in this way.⁵

Souls act in accordance with final causes or purposes; bodies in accordance with efficient causes and the laws of motion. Yet all is harmonious within the one universe. Bodies act as if there were no souls, and souls as if there were no bodies; and yet both act as if each influenced the other. All this is explained by the pre-established harmony.

VI. THEORY OF KNOWLEDGE

The monads, Leibniz says, have no windows; they receive no impressions from without owing to stimulation by other monads; their entire progress is in the increased clearness and distinctness and adequacy of their perceptions, in which, to be sure, the entire universe is mirrored. If we were de-

pendent upon outside stimulation for our knowledge we could never be sure of *eternal truths*, like the principles of mathematics, which we know hold under all possible conditions. Knowledge of such truths must be derived from *innate ideas*, of which we may not indeed become aware until circumstances and reflections bring them to our attention. Leibniz makes a distinction between perception, or mere awareness, and *apperception*, or real understanding of what is perceived. Only spirits apperceive, and so can know themselves, think their perceptions in logical relations, and define eternal truths.

Eternal truths (*vérités éternelles*) are absolute. Illustrations are the principles of logic and mathematics and the existence of God, which we know intuitively or by demonstration by means of the principles of *identity* and *contradiction*. The principle of identity (A is A) enables us to recognize the identity of the subject and predicate of a logical judgment; that of contradiction assures us that it is impossible for two mutually exclusive judgments, like A is B and A is not B, to be both true in the same sense. These principles enable us to establish certain truths as eternal; no circumstances could ever arise that could contradict any of them; e.g., all the parts and properties of a circle are logically implied in its definition, and no circle could be drawn in contradiction to them. By means of eternal truths we can establish no particular fact regarding existing things, with the exception of the existence of God. While we know as a matter of eternal truth that if a triangle exists anywhere, the sum of its interior angles will be equal to two right angles, we do not know in this manner as a matter of fact that an existing triangle has actually been drawn upon the blackboard in the next room. Eternal truths (except the existence of God) afford us only *hypothetical* judgments about existence; e.g., *If a triangle exists anywhere, the sum of its angles must be equal to two right angles.*

Our knowledge of existing things is *contingent*

truths, or *truths of fact* (*vérités du fait*); Leibniz concedes to the empiricists that such knowledge comes only from observation. Yet, he says, for every existing fact there must be a *sufficient reason* why it occurs as it does and why something else did not take place instead. For instance, I am at this moment sitting in a room and writing about Leibniz; there are sufficient and determining reasons arising out of my past life and my plans for the future to account for my doing this instead of taking a walk or calling upon a friend.

We usually cannot trace in detail all the reasons for the occurrence of a specific event, but we can often discover some of them, and if every event were not determined by sufficient reasons this world would be a chaos, and not, as Leibniz believes, the best of possible worlds. Each finite monad makes its decisions among the possible alternatives open to it, selecting those it believes to be best; however, even spirits often make choices that are bad, because their perceptions are confused. Only God invariably makes the best possible choices. But there is always a sufficient (although not necessarily a morally justifiable) reason for every act and every experience in the life of every monad.

Leibniz believes in *free will* in a sense, but he is not an indeterminist. Every spirit makes decisions for itself, but there are sufficient reasons in its own nature and character which determine what these decisions will be. This, he might have claimed, is why it is possible to write the biography of a person or the history of a nation, and also why reasoning in the social sciences is possible but less accurate than in mathematics: We cannot demonstrate the necessity of occurring events by the laws of identity and contradiction; we can only hope to find sufficient reasons why they took place instead of alternatives that are conceivable. In his recognition of contingent truths and matters of fact explainable only by the principle of sufficient reason, Leibniz is opposed to Spinoza, who held that every event occurs by a necessity like that in

VII. ARGUMENTS FOR THE EXISTENCE OF GOD

Leibniz advances the ontological and cosmological arguments for the existence of God in forms modified in accordance with his own theory of knowledge. He also found an argument in the pre-established harmony.

His statement of the *ontological* argument may be put in this way. There are possible or contingent truths, which may or may not actually occur; there must therefore be some necessary and actual ground that makes these truths possibilities. This actual ground cannot lie within the series of contingent and possible truths themselves, since they are not necessarily actual. But nothing could even be possible unless there were some actual ground outside itself that could make it so. For anything to be possible means for it to have the capacity under some circumstances or conditions to become actual; otherwise it would not even be possible. Now the existence of God as an infinite being is possible, since there is no logical contradiction in the idea of God to prevent it from being possible. And the idea of God is that of a being that has no limits, and so there could be nothing outside of such an idea to prevent it from existing actually. Since, therefore, there is nothing to prevent either the possible or the actual existence of God on the one hand, and on the other the assumption of His existence is necessary to serve as the ground that will account for contingent and possible truths, we conclude that God actually exists.

The *cosmological* argument in its Leibnizian form may be stated in the following manner. There must be a sufficient reason for every particular matter of fact. Take, for instance, the fact that I am now writing; there is a multitude of contingent present and past events which go to make up the efficient cause of my present act; back of every one of these contingent events there is in turn another multitude of contingent events to make it possible; and so on indefinitely. Underlying all the complexity of contingent events, there

must be an absolutely necessary being that is the ground of its own existence, and not dependent upon anything prior to itself—God.

The argument from the *pre-established harmony* is that the mutual correspondence of the different monads, which never do act upon one another, and yet are in as complete harmony as if they did, implies the existence of God as their creator. The perfect agreement of so many substances without communication with one another can come only from a common cause.

Stated thus baldly, these arguments for the existence of God are not conclusive. The first two, though more subtle than the arguments of Descartes and Spinoza, equally assume that the actual existence of God can be deduced from the mere idea of an infinite being. The argument from the pre-established harmony assumes the prior acceptance of the doctrine of monads, and can appeal only to those who are already convinced of it. To leave the matter here, however, would be unfair to Leibniz. The existence of God cannot be demonstrated in a short series of propositions without leaving a great many assumptions unexplained and undefended. If a philosopher can present a system to us which is the most satisfactory intellectually of any that we know, and if some particular feature of his system, such as his conception of God, is an integral part of it, we shall be disposed to accept this feature because of the merits which we see in the system as a whole. It is proper to add that Leibniz' thought of God expressing Himself in the infinite variety of the universe, in minds that reflect a common world each in the manner expressive of its own individuality and yet in complete harmony with the rest, has made a profound appeal to many thinkers who would not be disposed to accept other features of his system. In view of these considerations, Leibniz has sometimes been claimed to be the first great philosophical interpreter of Protestantism.

VIII. THE CITY OF GOD

Leibniz was an optimist. He believed that this is the best of possible worlds. Few persons are optimists today, although the life about which we complain is probably a great deal more prosperous and happy than that of the Germany which Leibniz knew, living as he did when his country was painfully recovering from the desolation of thirty years' war. The reader of literature who derives his acquaintance with Leibniz' optimism from the superficial reflections of it in Pope's *Essay on Man*, where it is defended, or from Voltaire's *Candide*, where it is satirized, does not form a just impression of his reasoning.

Leibniz' argument is deductive. God is all-wise, and hence He knows all the eternal truths and all the contingent truths. The latter include all the possibilities of existence; but not all of these possibilities are *compossible*, that is, capable of existing simultaneously. God is omnipotent in the sense that He can create anything that is possible, but in so doing He has to select between alternatives that are mutually exclusive and not compossible. Given an all-wise and good God, whose power is limited only in the manner described, and it follows that He must have created the best world that could be created. Any theist who proceeds in this way and is confident of his reasoning up to this point will not find the problem of evil insuperable. The question, of course, for the modern student of the philosophy of religion is whether it is possible to begin at this end and deductively establish the existence of an infinite and all-wise God before considering empirically the presence of evil.

If it is possible to proceed in the manner of Leibniz, all that a theodicy needs to do is to show that the evils which we observe in the world do not necessarily contradict the conclusions which he has already reached. Leibniz accordingly points out the fact that we experience only a small portion of the world for a short period of time, and that to

live in the world, as we know it, is better than not to exist at all. It quite well may be that the bit of the world we know is the least desirable part when viewed in isolation from the rest. A small corner of a picture, or a few strains of music, experienced apart from the rest of the composition, would have small value. There must be evil in the world, else the good by which it is overcome could not be appreciated, or even in some cases brought about. The treason of Judas Iscariot, for instance, made possible the redemption by Christ, and so the old medieval hymn was justified in referring to this treason as "a happy fault"—*O felix culpa*.

At the close of Leibniz' *Theodicy* is an allegory in which Minerva, symbol of the divine wisdom, explains why her father, Jupiter, chose to create this world, with its possibilities, in preference to other possible worlds. In this world Sextus Tarquin, the last of the Roman kings, commits the rape of Lucretia, is expelled from Rome, and ends his life in infamy. Sextus, being the man that he was in this world, from the necessities of his nature and not from any external compulsion, acted as he did in accordance with the principle of sufficient reason. He could not have done otherwise without having been a different man. Instead of having created this world, Jupiter might have chosen to create a quite different world in which a different kind of Tarquin would not have gone to Rome and ended his life in infamy, but instead have gone to a Corinth, cultivated a garden, grown rich, beloved, and esteemed, and died cherished by the whole town. Or Jupiter might have created a still different world, in which another Sextus would have gone to Thrace, married the daughter of the king, and become his honored successor. In both of these alternative possibilities which Jupiter rejected, there would have been a better Tarquin. But in neither of them would the Roman republic have arisen, with all that it has contributed to civilization. All things considered, this is the best world that Jupiter could have created. All possible worlds could be arranged mathemat-

ically in a pyramid according to their relative perfections, and the actual world would be found to stand at the apex of the pyramid as the best of possible worlds. That is why Jupiter chose it in preference to the rest.

God in creating the world foresaw all that would take place within it. In this sense He has foreordained all that comes to pass. However, each spirit makes its own choices according to its own nature, and so is free, and hence responsible for its own decisions. It is not easy for any philosophy that insists on the omniscience, goodness, and omnipotence of a creator God to make human freedom and moral responsibility convincing. At any rate, Leibniz is as successful as other theists who have defended similar conceptions.

Human beings, according to Leibniz, before conception had only ordinary sensitive souls, which subsequently became elevated to the rank of reason and the prerogative of *spirits*. Souls, such as animals have, are mirrors of the universe; but spirits are images of God, capable of knowing the system of the universe and entering into fellowship with God. So to them God is not merely what an inventor is with reference to his machine, but rather what a prince is to his subjects, or even a father to his children. So the assembly of all spirits constitutes the City of God, that is to say, the most perfect state that is possible under the most perfect of monarchs. There is complete harmony between God considered as architect of the physical universe and God as monarch of the divine city of spirits. All things conduce to grace by natural methods. This globe must be destroyed and restored by natural means as the government of spirits may require, for the chastisement of some and the recompense of others. In the course of nature and the mechanical structure of things, good and evil deeds ultimately, if not immediately, receive their proper rewards. Thus Leibniz attempts to show that this is the best of possible worlds, and so to justify the ways of God to men.

IX. THE ACHIEVEMENTS OF LEIBNIZ

The philosophy of Leibniz may possibly seem to the reader the most fantastic which we have thus far studied. Comparatively few philosophers since his time have been willing to accept his doctrine of monads. However, though comparatively little that he wrote had yet been published, his views exercised considerable influence throughout the eighteenth century, especially in Germany, where Christian Wolff's popularization of Leibniz remained the reigning philosophy down to the time of Kant. The common Enlightenment confidence in increasing human perfectability and progress largely owed its origin to Leibniz.

Leibniz has always been regarded with respect, and interest in him has increased during the twentieth century. Among contemporary philosophers, Whitehead's theory of "actual entities" and Bertrand Russell's theory of "Perspectives" are reminiscent of Leibniz. Some of the recent developments in mathematics and physics, such as the relativity theories and the tendency to reduce matter to energy statable in mathematical symbols and possibly of mental constitution, are along Leibnizian lines. Leibniz had little or no notion of biological evolution, and the preformation theory which he accepted has no standing today. Yet in the doctrine of genes in contemporary theories of heredity there may be traces of the influence of Leibniz. In both biology and psychology, the purely mechanistic theories that have come down from Hobbes and Descartes are being challenged by those who believe that life and mind in at least some of their aspects are adaptive. The emphasis in a certain school of philosophers today upon symbolic logic and their desire to substitute a language of signs for words in order to secure more exact thinking is anticipated in certain of Leibniz' papers.

Many, perhaps most, philosophers of the present time believe that the world is teleological, and that some kind of

modified theism is compatible with a scientific view of the world. All who look at philosophy in this way, and who believe that it is possible to defend a view that accepts science implicitly and unqualifiedly and yet makes room for individuality, freedom, and human initiative and activity, accord an important place in the development of modern thought to Leibniz.

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PART II

THE ENLIGHTENMENT

CHAPTER VIII

LOCKE

I. THE ATTITUDE OF THE ENLIGHTENMENT

During the natural science period of the Renaissance, as we have seen, a marked advance was made in the development of methods of inquiry, rationalistic and empirical, and philosophers with entire confidence in these methods developed systems in which God, man, and nature were each assigned an appropriate place. Many of these systems are still respected as valuable and significant. However, they differ considerably from one another, each contains serious difficulties, none has won general acceptance. By the close of the seventeenth century a reaction against system building set in. Before further attempts should be made to account for the universe, it seemed best to study more thoroughly what lies closer at hand, man himself. This characteristic attitude of the Enlightenment is voiced in the well-known lines of Alexander Pope:

"Know then thyself, presume not God to scan;
The proper study of mankind is man."¹

It was now realized that not even Descartes, with his brief gesture of universal doubt, had gone sufficiently into the problem of *the extent and limits of human knowledge and powers of understanding*; i.e., into what we now call *Epistemology*. This, therefore, became the chief interest of the Enlightenment, a period usually dated from the appearance of Locke's *Essay on Human Understanding* in 1690, and terminating with the publication of Kant's *Critique of Pure Reason* in 1781.

While all the great thinkers of this period were to some extent influenced by Descartes and the other rationalists of the Renaissance, their prevailing tendency was *empiricism*. The original source of all our information about the outside world is sensation, although sense data can and should be analyzed, interpreted, and criticized by the reason. The first task of the philosopher is to make a careful inventory of the knowledge immediately delivered by the senses, and the philosophy of the period is closely allied with psychology and physiology.

In order that investigators might be unhampered, there was, in every field of inquiry, much advocacy of complete freedom of thought, speech, and publication. All claims of either church or state to absolute authority in matters of belief and conduct are repudiated by the philosophers. Popular government and the rights of the people are upheld. The movement naturally had its beginning in England, where the Revolution of 1688 was interpreted as an exercise of the right of the people to determine the form of government, and it inspired the patriots of America in 1776 and those of France in 1789.

We are indebted to the Enlightenment for political independence, economic freedom, religious toleration, and liberty of thought and publication, as well as for our faith in education and in the possibility of social progress. During this period intelligent men broke away from superstitions of all kinds. If it were not for the Enlightenment we would still be burning witches as well as heretics, seeking to cure diseases and gain good luck by the use of charms, fearing magic and the evil eye, seeing ghosts, and consulting astrologers and fortune tellers for knowledge of future events.

The appropriateness of the English name for the period, the Enlightenment, is therefore obvious. It is evidently an era of illumination; hence, the French call it *L'Illumination*. The previous clouds of intellectual confusion were cleared away and the bright sunlight of unobscured observation and

reason prevailed; therefore, the more figurative German name *Aufklärung* ("clearing-up" period) also has its justification.

II. LIFE OF LOCKE

John Locke (1632-1704) was born in the same year as Spinoza. Like Spinoza, he had delicate health and came of a consumptive family. If he had died equally young, he would be unknown as a philosopher. This is what in all probability would have happened if Locke had not been prudent enough to study medicine and learn how to conserve his health, and yet to lead a fairly active life, toward the close of which he was able to publish the series of books that determined the general course of philosophical thought for nearly a century.

Locke was an Englishman who came of Puritan stock. His mother, who seems to have died when he was a little boy, he dimly remembered in his old age as "a very pious woman and affectionate mother." His father was a country lawyer, who lost part of his fortune by serving in the Parliamentary army in the struggle against Charles I. He governed the motherless boy with strictness while he was young, and gradually admitted him into full comradeship as he grew older, with the result that Locke in after years always thought of his father with great respect and affection and advised his friends to bring up their sons in a similar way. From his home training Locke acquired the best traits of Puritanism,—piety, prudence, conscientiousness, integrity, industry, self-reliance, and love of liberty. He obtained scholarships which made it possible for him to study at Westminster School in London (1646-1653) and Christ Church college at Oxford (1653-1659), both then under Puritan control. The head of Christ Church, John Owen, was an advocate of religious toleration, and the comparatively liberal atmosphere of the place is a manifestation of one of the best traits of Oliver Cromwell, who was Chancellor of the University. Locke as an undergraduate freely

associated with royalists as well as republicans, and with Anglicans and Presbyterians as well as Independents. He learned at least as much from conversation and correspondence with fellow students and from private reading (which at this time or soon after included Bacon, Hobbes, and Descartes) as he did from the curriculum in which the emphasis was placed upon the ancient languages, grammar, and formal logic.

After completing his course as an undergraduate, Locke won a permanent appointment at Oxford to a "senior studentship," a position which combined teaching with graduate studies. At first he gave instruction in Greek and rhetoric, and afterward in moral philosophy. His studies were chiefly scientific, and included physics, chemistry, meteorology, and medicine.

In his capacity as an occasional practitioner of medicine, Locke treated Lord Anthony Ashley (subsequently the first Earl of Shaftesbury, an eminent statesman in the reign of Charles II), performing a delicate surgical operation which probably saved Ashley's life. The grateful Ashley thereafter gave his entire confidence to Locke, not only in medical matters but in his family and political concerns. Locke tutored his son (afterward the second Earl of Shaftesbury), arranged this son's marriage, which turned out happily, successfully delivered the young and delicate wife of a son, whom he later tutored, and who in after years as the third Earl of Shaftesbury became one of the important moral philosophers of the eighteenth century. Locke as political confidant of the first Earl of Shaftesbury held various important public offices while Shaftesbury was in power. The most interesting of these offices to American readers was the secretaryship to the founders of the colony of Carolina; what were for the time liberal concessions of religious freedom in the charter of the colony may have been due to Locke, who certainly approved of them. The first Earl of Shaftesbury took an active part in preparing the way for the Revolution

of 1688 (he died in 1683), and Locke, although more prudent, was his sympathizer and coadjutor in these undertakings. In consequence, Locke was deprived of his place at Oxford at the order of Charles II, and forced to live on the continent of Europe in virtual exile.

This sojourn on the continent, spent mostly in Holland, was fortunate for Locke's development as a philosopher. The income from a little property left by his father and an annuity from Shaftesbury were sufficient for his modest needs (he never married). He now had leisure to go over the notes upon philosophical subjects which he had been making for the past twenty years, and to complete the manuscript of the *Essay on Human Understanding*, and probably to compose much of the material of the other books which he later published.

The Revolution of 1688 enabled Locke to return to England with the fleet which brought Queen Mary II in 1689. During the subsequent decade, Locke occupied important political posts and published his books. His declining years were spent in retirement at the country seat of Sir Francis Masham, whose wife and daughter took tender care of the dying man, generally known as the greatest philosopher of the time.

III. REJECTION OF INNATE IDEAS

To clear the ground for the exposition of his own theory of knowledge, Locke in the first book of the *Essay on Human Understanding* attacks and rejects the doctrine of innate ideas. Conservative thinkers in England, in opposition to Bacon, and still more to Hobbes, had revived the ancient Stoic conception of innate ideas (*koinai 'ennoiai*) supposed to be inborn in the human mind and universally accepted by all races. Such innate ideas were claimed to include the fundamental principles implied in all logical reasoning, such as the laws of identity and contradiction ("whatever is, is" and "it is impossible for the same thing to be and not

to be"), the most basic moral principles, conscience, and God. The motive was, of course, to find more certain assurance of the immutable truths of morality, religion, and science than could be afforded by unstable emotions and uncertain deliverances of the senses. Locke believed in God, morality, and science; he did not share the naturalistic outlook of men like Hobbes, but he did not think that the latter could be refuted through the affirmation of innate ideas.

Locke insists that children as a matter of fact are not conscious of the laws of logic. In distinguishing between their toys and their sugarplums they do not say to themselves, "whatever is, is," and "it is impossible for the same thing to be and not to be." Savages live without formulating these rules of logic. Locke seems, while in office, to have conversed with administrators who had come home from the colonies. Unlike Hobbes and Rousseau, for instance, his references to savages reveal some acquaintance with the facts. Locke knows that there is extreme diversity among various peoples regarding what is right and wrong, and that it would be impossible to make a satisfactory list of moral principles based on the criterion of universal acceptance. Locke cites accounts of savage peoples reported to have no ideas of God and religion whatever. (This we now know is not strictly true, if the definition of religion is made sufficiently broad, but Locke was right if he meant that many savages have no notions on such subjects that would be at all acceptable to Christians or adherents of any of the more advanced religions; there are no religious truths that can be regarded as established by their universal acceptance by all human beings.) If God had given men any innate ideas at all, Locke urges, He certainly would have given them an innate idea of Himself, and this He has not done.

Nor, Locke insists, can the defender of innate ideas respond that some ideas are innate in the sense that men have an inborn disposition to acquire them as soon as they gain experience and learn to exercise their reason. For in this

sense every idea is innate, and no distinction can be made which will afford superior certainty and authority to some ideas in preference to others.

If Locke was right in rejecting innate ideas—and most philosophers now believe that he was—Descartes was wrong in accepting them, and he was the most eminent philosopher of the century to do so. Why, then, did Locke not mention Descartes in his attack upon the doctrine? Why does he instead direct his criticisms against less famous philosophers—Herbert of Cherbury, whom he mentions specifically, and other unnamed British writers who were attempting to revive the Stoic doctrine already noticed? The probable answer is that the British revival of the Stoic position was directly in opposition to Locke's empiricism; if all knowledge comes from experience, as Locke believed, none of it is inborn in the mind and capable of proof by the falsely alleged fact of universal acceptance. Locke had to confront the revamped Stoic doctrine and refute it. On the other hand, the doctrine of innate ideas may not have seemed to Locke to be a very essential part of Descartes' philosophy. Locke agreed with Descartes that certain ideas are known to be true by direct intuition, and that others can be deduced from them. In this manner, as we shall see, Locke thought it possible to establish the truth of mathematics and morals as well as of our own existence and that of God. Descartes, therefore, from Locke's point of view, was entirely right in believing that some ideas are known by direct intuition to be clear and distinct, and therefore true; Descartes' only mistake lay in his supposing that such ideas are innate and do not owe their origin to experience. Locke may have feared that if at the very beginning of his *Essay* he were to attack Descartes by name upon what to his readers would appear a very fine distinction (until they had completed the book and understood Locke's theory of knowledge in its entirety), he would mislead them into thinking that his own philosophy as a whole differed from that of Descartes more widely than was

actually the case. The fact remains that Locke's refutation of innate ideas in general excludes Descartes' as well as all other versions.²

IV. THE ORIGIN OF IDEAS

Since, therefore, there are no innate ideas, Locke proceeds in the second book of the *Essay* to give a largely psychological account of the manner in which we acquire ideas through experience. The mind of an infant before it has received any sensations as a result of the stimulation of its bodily organs is entirely devoid of ideas; it is like an empty cabinet of drawers, or a wax tablet (*tabula rasa*) on which nothing has been imprinted, or a piece of white paper on which nothing has been written. These figures of speech have sometimes been misunderstood. By them Locke merely means that the mind at this stage is devoid of *contents*; the latter can come only through experience. Locke's account credits the mind with "*powers*," evidently innate, to compound, compare, relate, and make abstractions from the simple ideas which it has previously passively received in experience; once the mind has material to work upon, it takes an active part in the processes of obtaining genuine knowledge.

Locke does not attempt to define *simple ideas*, which any one can recognize when they are mentioned. Consciously using an analogy from physics, Locke regards simple ideas as the atoms out of which all knowledge is composed. There are simple ideas of *sensation*, received from only one sense,—such as colors, sounds, tastes, odors, touch, heat, cold, and solidity; and simple ideas received from more than one sense, like space, figure, motion and rest. Then there are simple ideas of *reflection*, which arise from our becoming aware of our own mental processes and observing them; instances are our ideas of perceiving, thinking, doubting, believing, knowing, and willing (not the processes themselves). Lastly, there are the simple ideas which we receive from *both sensation and reflection*, such as pain, pleasure, existence, unity, and

succession. All of these simple ideas are obvious enough, with the exception of "power"; this we get from "observing that we can at pleasure move several parts of our bodies which were at rest; the effects also that natural bodies are able to produce in one another." (E.g., I perceive that I have the power to move my finger if I wish, and also that a flame has the power to melt wax.) The mind can neither make nor destroy a single simple idea; we receive such ideas *passively*, from stimulation in the case of those of sensation, and from observation of our own mental processes in the instances of reflection. (The fact that we can move or refuse to move our fingers, and melt wax or not as we choose, does not contradict Locke. What he evidently means is that if we choose to move our fingers we cannot fail to observe that we are doing so, and instead perceive our fingers unmoved; if we melt wax, we cannot at the same time see it unmelted. Or, to use an illustration of our own, we can look at the moon or turn our heads in the opposite direction; but if we do look at the moon we involuntarily perceive its apparent shape and color. There is a sense, therefore, in which our minds are passive in the reception of simple ideas.)

Critics of Locke subsequent to Kant have pointed out that we do not ordinarily begin by perceiving sensations separately and subsequently put them together; as a fact, we perceive objects as wholes, and the isolation of separate sensations is only effected by the artificial analysis of the introspective psychologist. This criticism, however, misses the real point in Locke's empiricism; namely, that all the data of our knowledge of the external world do come to us through the various organs of sensation, and that we can draw no conclusions that go beyond what an analysis and interpretation of these data will warrant.

Locke believes that our simple ideas of sensation truly resemble the qualities of objects existing in the external world in the case of the *primary qualities* of solidity, extension, figure, number, motion and rest. This is known by the

fact that these qualities "are utterly inseparable from the body in what state soever it be"; keep dividing any material object into parts as long as you can perceive them, and they will continue to have these same primary qualities. Locke's belief in the independent reality of the primary qualities is evidently derived from his knowledge of physics and chemistry; he was a friend and admirer of Boyle and Newton. On the other hand, he says that there is nothing in an external object that exactly resembles the simple ideas of *secondary qualities*,—such as colors, sounds, odors, tastes, and temperatures. "The particular bulk, number, figure and motion of the parts of fire or snow are really in them, whether anyone's senses perceive them or not, and therefore they may be called real qualities, because they really exist in these bodies; but light, heat, whiteness or coldness are no more really in them than sickness or pain is in manna. Take away the sensation of them; let not the eyes see light or colors, not the ears hear sounds; let the palate not taste, nor the nose smell; and all colors, tastes, odors and sounds, as they are such particular ideas, vanish and cease, and are reduced to their causes, *i.e.*, bulk, figure and motion of parts." ³ That our ideas of secondary qualities are not resemblances of the real qualities of physical objects, may be shown by simple experiments. "Pound an almond, and the clear white color will be altered into a dirty one, and the sweet taste into an oily one. What real alteration can the beating of the pestle make in any body, but an alteration of the texture of it?" ⁴ Suppose that when one of your hands is hot and the other cold, both were to be placed at once in a vessel of water intermediate in temperature as registered on a thermometer. The water would seem cold to one hand and warm to the other. The sensations of the two hands cannot be resemblances of qualities in the water; they can be nothing but effects of the increase or diminution of the motion of the minute parts of our bodies caused by the corpuscles of the water.

There accordingly are three sorts of *qualities* and *powers*

in bodies. First, the *primary* qualities are really in the physical bodies whether we perceive them or not, and they have the *power* to produce simple ideas in our minds which truly resemble them. Secondly, physical bodies by reason of their insensible qualities have the *power* to operate in a peculiar manner on our senses and produce in us ideas of *secondary* qualities that are unlike anything in the physical bodies themselves. Thirdly, physical bodies, by reason of the peculiar constitution of their primary qualities, have the *power* to make changes in the bulk, figure, texture, and motion of other bodies, so that the latter operate on our senses differently from before; *e.g.*, when the sun makes wax white, and fire makes lead fluid; these are *tertiary* qualities.

Complex ideas are made by the mind out of simple ideas, chiefly in three ways. The mind may combine several simple ideas into a *compound* one, such as beauty, gratitude, a man, an army, or the universe. Or the mind may bring two ideas, whether simple or complex, together, and set them by one another so as to take a view of them at once, without uniting them into one, by which it gets all its ideas of *relations* "such as father and son, bigger and less, cause and effect." Finally the mind may *abstract* an idea from those that accompany it, and make it representative of all others of the same kind; thus, for example, "whiteness" is separated from the other simple ideas which appear together with it in such diverse combinations as chalk, snow, and milk, and made into a *universal*. The three principal processes by which the mind makes complex ideas are therefore those of *combination*, *relation*, and *abstraction*. Locke's thought does not seem to be that the mind forms complex ideas arbitrarily or capriciously. When the mind functions correctly, it produces ideas that correspond to the external world as it actually exists, apart from the mind itself. Locke, in other words, is a forerunner of twentieth century critical realism. Locke believes that the world exists independent of the mind. The mind receives simple ideas of sensation as a result of stimula-

tions by external objects. These simple ideas correspond to external reality in the instance of the primary qualities; in the case of the secondary qualities the mind receives ideas unlike the external causes of stimulation, but within serious limits the nature of these latter can often be ascertained by reason and experiment.

The mind through its activities forms three different kinds of complex ideas,—*modes*, *substances*, and *relations*. *Modes* are complex ideas which are not thought of as existing by themselves as independent things or objects. Some modes are simple, and are merely different variations or combinations of the same simple idea, without the mixture of any other; the clearest illustrations are numbers, like a dozen or a score, which are constituted by repetition of unity or the number one. Space is a simple idea which may be modified in many ways, either because of observations of existing things or as a result of abstract reasoning. Space regarded barely as length between any two objects is called "distance"; if considered in length, breadth, and thickness it becomes "capacity." In whatever manner it is conceived, it is "extension." As opposed to Descartes, apparently, Locke takes pains to show that extension is a different idea from body (or mass, as we would be more likely to say) and that empty space or a vacuum is conceivable. Succession is a simple idea of reflection, first derived, Locke thinks, from observation of the sequence of ideas in our minds; by noting a distance in the parts of this succession, we get the idea of duration; the mind next seeks for a measure of duration and so arrives at the idea of time, which it calculates by the periodical appearances of the sun and moon, since they are constant, regular, and universally observable by mankind; by imagining processes of measurement carried on without end, we arrive at the idea of eternity. Locke also discusses simple modes of many other types: modes of motion, sound, color, processes of thought, pleasure and pain, power, good and evil, the freedom of the will, and happiness. All of these

he appears to regard as simple modes, although some of them would seem more properly to be denominated mixed modes in accordance with his definitions.

Mixed modes are complex ideas made of simple ideas of different kinds, put together by the mind's activity into a complex idea; gratitude, beauty, and obligation are examples. Law and morality are composed of mixed modes. All these are modes, because they are not independently existing objects, like substances.

Substances, when Locke uses the term with reference to complex ideas, are combinations of simple ideas taken "to represent distinct particular things subsisting by themselves"; in this sense our idea of a piece of lead is a substance. Let us analyze this particular illustration. Locke tells us that it includes the simple idea of a dull whitish color, with certain degrees of weight, hardness, ductility, and fusibility together with the ideas of a certain sort of figure and the powers of motion. But, more than this, Locke says that it implies another idea, which he also sometimes calls the idea of substance, and about which he finds it impossible to say very much; it is an "unknown substratum" in which the other qualities inhere. Without such a substratum the other qualities of lead could not exist as qualities of any real physical object; they would be as intangible as space, duration, beauty, or gratitude; they could not of themselves constitute a genuine physical thing, like a piece of lead. Think of any object whatever as existing by itself and not as a quality of something else, and you will realize that your complex idea of it consists of a combination of various simple ideas or qualities *plus* the idea that there is some real substratum in which they inhere.

Locke, as we see, uses the word "substance" in at least *three* different senses; sometimes it is any independently existing physical or spiritual *object*; at other times it is our complex *idea* of such an object; again, it is the unknown *substratum* in which the observable qualities of the object

inhere. Locke is often guilty of using the same term indifferently as an idea and the independent entity to which the idea refers; this leads to considerable confusion in his expositions, for which his critics have sometimes attacked him more severely than he deserves, forgetting that he wrote before the epistemological controversies of the nineteenth century had arisen, and that he could not be expected to make distinctions with these controversies in mind. Henceforth in this chapter, the term "substance" will be used in the first of the three senses mentioned (as an independently existing object); "complex idea of a substance," or a similar phrase, for the *second* (the idea of such an object); and "substratum" for the *third* (*i.e.*, the unknown something in which the observable qualities inhere).

Locke observes that it is as easy and as necessary to believe in *spiritual* substances as in material substances. Our various mental operations of thinking, feeling, and willing which go to make up the observable aspects of our minds, cannot float along by themselves; there must be some substratum, too, in which they inhere, some enduring soul or self. Your complex idea of yourself implies that you are some kind of being who thinks, remembers, hates, and loves; you are not merely a loose collection of floating ideas with nothing substantial back of them.

Our complex idea of God our minds have constructed by enlarging with the idea of infinity those ideas of existence, duration, knowledge, power, pleasure, happiness, and other qualities which we have experienced in ourselves and which it is better to have than to be without. This is the manner in which we have acquired our idea of God, who, as He actually exists, infinitely exceeds any idea that we are able to form of Him.

The third kind of complex ideas which Locke distinguished is *Relations*. These are gained by comparing ideas with one another. Any relation implies things related. If I speak of Caius as a man, unrelated to other persons, I think

of him merely as an instance of the human species. But if I say that he is a husband and father, I imply other persons with whom he is related. A person may cease to be in a particular relation without being altered in other respects; Caius by losing his son ceases to be a father, but may not otherwise be altered. (This is what is now known as the doctrine of the "*externality of relations*"; relations do not alter terms related, they are external to them.) Important are the relations of *cause and effect*, *identity and diversity*. When we perceive one event invariably followed by another, we call the first the cause and the latter the effect; we further assume that some *force* or *efficacy* passes from the first into the second. When we experience a collection of ideas at one time and a precisely similar collection in the same place at a later time, we assume the continued existence of an *identical* object. We even find a certain identity between an acorn and the oak into which it develops, between a child and the old man who in the course of time he had become; we identify our own selves with our memories of what we said and did a decade ago. These common-sense views of the relations of causation and identity were later to be criticized by Hume. Locke also discusses temporal, spatial, and moral relations, and others. Some of these he regards as existing in reality and correctly discovered by the mind, while others are arbitrary and fantastical creations of the mind. Some of our ideas are clear and distinct and others are confused; some are true and others are false; all depends upon the extent to which ideas correspond to the objects (Locke's word is "*archetypes*") in reality which they are intended to represent. Our ideas of substances, for instance, may be true so far as they go, but they are certainly inadequate and not too clear. In thinking, we sometimes proceed logically from one point to another, while at other times the association of one idea with another is a mere coincidence. In the history of psychology, Locke's treatment of the association of ideas marks an important step in the development of the doctrine.

V. LANGUAGE

In the third book of the *Essay*, Locke offers an analysis of the use and abuse of words, and makes a contribution to the philosophy of language. Bacon, an earlier empiricist, had given warnings against the "idols of the market-place," and the fallacy of assuming words to be actually existing things (the fallacy, as it is now called, of hypostatization or reification), but he did not go further into the subject. Locke makes a more extended interpretation of language from an empirical and nominalistic standpoint. This he had to do in order to refute those types of rationalism still persisting in his time which regarded concepts or universals as ultimate realities with independent existence of their own, from whose definitions it was thought that further knowledge could be deduced without empirical observation. Locke is no rationalist in this sense of the term. Universals for him, unlike Plato, are not independent realities in which particular things participate, or of which they are copies. Nor with Aristotle does Locke believe that universals somehow exist in particular things. On the contrary, starting with simple ideas of sensation and reflection as the original sources of all human knowledge, Locke finds that the only entities that really exist by themselves are individual particular things or substances.

It is very convenient for us to designate a particular thing by a word or name, both in order to communicate with one another and to think for ourselves. It is impossible, however, for us to give a separate proper name to every particular person or thing. So we apply one name to a group of things that are similar. This we are able to do by reason of our powers of comparison and abstraction. A little child soon recognizes his mother and his nurse and learns to call them "mamma" and "nurse." He presently abstracts the common characteristics of other persons and indifferently calls all of them "men." Sometimes a child's comparisons and abstrac-

tions are superficial; so he may call the yellow feathers in the tail of a peacock "gold." Later on his observation becomes more accurate, and to one class of objects all of which have the same constant qualities he gives the name "gold," and to another class of objects "lead."

We do not know the *real essence* of lead or gold or any other material thing; that is, the underlying ground or principle that really makes it what it is. We can distinguish classes of objects only by fixing upon two or more qualities that we perceive to go constantly together. Only through such qualities can we name things, define them, and mark them off from one another. Such qualities can furnish only a *nominal essence*; that is, a mark of identification, a name. When we define man as a "rational animal," we are merely denominating a "nominal essence" of man, a convenient characteristic by which to distinguish men from other animals; we have not marked off the real essence or ultimate nature of man in such a definition (as Aristotle had wrongly supposed).

So the genera and species of logic (the classes and subclasses into which terms are placed) for Locke are merely devices for human convenience. Our classifications may be accurate enough for our purposes, but they do not necessarily follow the actual demarcations of nature; it is merely useful for us to place a shock and a spaniel within the same species, and to assign a hound and an elephant to different species. No plants, animals, or material objects in reality are absolutely fixed and unchangeable, according to Locke. It is only our words that are ever so. All things that exist, except God their creator, are liable to change; that which was once grass becomes the flesh of a sheep and later is assimilated into the body of a man; only the words "grass," "sheep," and "man" remain unaltered, not any real objects in the external world. Locke knew nothing of biological evolution, but he followed the British empirical and nominalistic tradition which had come down from William of Occam, and denied the immuta-

bility of species in logic. He continued the line of thought which in the nineteenth century was to enable another Englishman, Charles Darwin, to give sweeping significance to the principle in biology.

In the case of *substances*, then, we cannot discover the real essences that constitute them; we do not even know what there is in the ultimate nature of gold that makes it yellow, heavy, malleable, and soluble in *acqua regia*; the word "gold" simply marks a collection of objects that have a group of constant common qualities, and our definition is merely a nominal one for our own convenience. On the other hand, in the case of *simple modes*, where we are contemplating simple ideas in their mutations and combinations, we can formulate definitions that are based on the real essences of the modes, as in geometry, where we can show how the various characteristics of a triangle follow from its definition. That is why mathematics is capable of demonstration, whereas sciences that deal with substances are not. Definitions are most arbitrary in the case of *mixed modes*; it is purely for human convenience, for instance, that we formulate such words as "murder" and so distinguish the killing of a man from the killing of a sheep because of the nature of what is killed, and "parricide" from less heinous forms of murder because of the relationship between the murderer and his victim. A mixed mode in one language often cannot be translated by a single word into another language; for instance, there are no English equivalents for the Latin "versura" and the Hebrew "corban"; many legal terms in other languages refer to practices not known to us or not sufficiently important to have received names in our vocabulary. What is true of legal terms holds for mixed modes generally. Yet, since mixed modes are mostly combinations of ideas which the mind puts together of its own choice, their real essence is of our own making, and we can, if we are careful, define them clearly and employ them consistently. Morality is an instance of mixed modes of our own

making, and so Locke thinks it can become a science as capable of demonstration as mathematics.

VI. KNOWLEDGE

In the fourth and last book of the *Essay*, Locke draws his final conclusions regarding the nature and extent of human knowledge.

Knowledge he defines as *perception of the agreement and disagreement of our ideas*. This agreement or disagreement is of four sorts. The first is of *identity or diversity*; the original act of the mind on perceiving its ideas of sensation and reflection distinguishes them from one another; nothing is more obvious than that "white" and "round" are not "red" and "square." The second is the immediate discernment of *relations* between ideas; those in mathematics are especially clear. The third is observation of the *coexistence or non-coexistence of ideas in the same object*, especially in substances; in the case of gold we find "that fixedness, or a power to remain in the fire unconsumed, is an idea that always accompanies and is joined with that particular sort of yellowness, weight, fusibility, malleableness, and solubility in *acqua regia*, which made our complex idea, signified by the word gold." The fourth is knowledge of *real existence*, of what in the outer world corresponds to an idea; Locke mentions our knowledge of the existence of God as an illustration. Within these four sorts of agreement or disagreement is contained all the knowledge that we have or can acquire. Knowledge may be *actual*, the present view that the mind has of its ideas; or it may be *habitual*, as in the case of truths that are lodged in the memory.

There are three degrees of knowledge,—*intuitive, demonstrative*, and *sensitive*. Most certain of these is intuitive knowledge, in which the mind perceives the agreement or disagreement of two ideas without the intervention of any other. By this we know that white is not black, that a circle

is not a triangle, and that three are equal to one and two. When the mind cannot bring two ideas together clearly enough to compare them directly, it can often effect such a comparison through the intervention of other ideas; this is *demonstrative* knowledge, and depends upon proofs; while it is not so easy nor so clear, it is entirely valid if each separate step is verified by intuition. The extent of intuitive knowledge is limited by the range of ideas which we possess; there must be much in reality of which we have no ideas at all. Demonstrative knowledge is restricted by our frequent inability to find logical connections between ideas. Locke conceives of the methods of intuition and demonstration in much the same way as Descartes and Spinoza; but he limits their applicability to understanding the agreement and disagreement of our ideas with one another. They do not inform us whether our ideas agree with the external world.

However, these two kinds of knowledge make reasoning in mathematics and ethics certain, and afford proof of our own existence. Locke's position here is a strong one in principle. In these fields truth is viewed by him as merely implying the agreement of ideas with one another, not with external reality. Many mathematicians would agree with Locke that the problem of accuracy in their field is merely one of definitions and consistent reasoning from them. From the definition of a triangle in Euclidean geometry, it follows that the sum of its three angles are equal to two right angles; any object that might ever be found in nature of which this did not hold would not be a triangle as thus defined. So mathematical reasoning is absolutely valid if it is internally consistent. Although no one today would accept Locke's views on ethics in detail, there still are moral philosophers who probably sympathize in principle with Locke's theory of the validity of ethics. According to Locke, it is possible to arrive intuitively at certain fundamental principles of moral obligation from which a system can be deduced. It does not matter whether any person actually carries out all of the

principles of this system in his conduct; he ought to do so if the system itself is valid, that is, if the intuitions have been correctly stated, and the implications consistently deduced. (As a matter of fact, however, no philosopher has ever succeeded in advancing a purely demonstrative system of ethics that has met with wide acceptance.)

Our own existence Locke thinks we can know intuitively. "I think, I reason, I feel pleasure and pain; can any of these be more evident to me than my own existence? If I doubt of all other things, that very doubt makes me perceive my own existence, and will not suffer me to doubt that." ⁵ All Locke needed to do here was to repeat Descartes' *cogito ergo sum* argument.

The third degree of knowledge, *sensitive knowledge*, Locke derives from simple ideas of sensation. We have no serious difficulty in distinguishing between the ideas of present sensation, and the fainter ideas of memory and imagination; the former are passive, and are accompanied by involuntary pleasure or pain; they and memories of them can be verified by experiment and observation, and appeal to the testimony of other persons. Sensitive knowledge assures us that an external world exists, and that it contains particular things with primary qualities inhering in substances. Unfortunately it affords us no way to trace the connection between primary and secondary qualities, nor the real essences of the substances whose unknown substrata are the causes of both. If only we knew the real essences of the substrata with intuitive certainty, we could deduce their qualities with the exactitude with which we can proceed in mathematics; but we cannot, for one reason, because the particles that compose matter are too minute for our perception.

Yet we can at least accumulate observations, and notice the ways in which primary qualities appear to us to be constantly combined in substances, and so we can learn to predict their future appearances with more or less proba-

bility. Locke outlines some principles for the selection of hypotheses, and methods for estimating probabilities. In view of the great limitations of our senses, he does not seem to hope for very much progress in fields of investigation in which real essences are unknown, and mere observation has to take the place of mathematical demonstration. While he greatly admires the achievements of his friends among the scientists, such as Newton, Boyle, and Sydenham, and modestly thinks of his own work as a philosopher as of little importance in comparison, he shows little of Bacon's confidence in the future progress of experimental science.

Locke would be astonished at the great advances that have been made in the natural sciences since his time. If he were living today, would he be an extreme realist, retract his assertion that the real essences of substances are unknowable, and concede that they are being rapidly disclosed in the molecules, atoms, electrons, protons, neutrons and genes of contemporary physics, chemistry, and biology? Or would he be a scientific agnostic and regard all such units as hypothetical fictions, useful for human description and calculation, but nonetheless nominal essences, and would he claim that the real essences of substances have remained undiscoverable? In either case he would probably continue to claim that there is no way in which we can understand the operations of our minds upon our bodies, nor how the latter evoke thoughts, although both processes evidently occur. He might be willing to grant that subtler hypotheses than the interactionism which he accepted from Descartes have since been advanced, but he could claim with some justification that as yet nothing has really become known upon the subject.

VII. PHILOSOPHY OF RELIGION AND ETHICS

In general Locke thinks that nothing can be known of real existence except through sensation. He makes an excep-

tion of the existence of God, which he believes comes within the realm of absolutely demonstrative knowledge. He offers a proof consisting of several propositions, each of which is known intuitively, and combined constitute a demonstration. Man knows intuitively that he himself exists, and also that nothing cannot produce something. It is also self-evident that from eternity there has always been something (else man who certainly exists now would have been produced by nothing, or by something that originally arose from nothing). This something that has existed from eternity must be most powerful, since it must have been the source of all power; and it must also be most knowing, since it is inconceivable that anything wholly without knowing could produce knowing beings. Therefore, there must be an eternal, most powerful and most knowing being, namely God.

Locke rephrases part of this argument in another way. It is self-evident that something must have existed from eternity. This something must have been either cogitative or incogitative. It is inconceivable that an incogitative being of any kind, mere matter and motion, could have produced thought. It is true that we cannot understand how thought can effect motions; yet we know that our own thoughts cause our hands to move; if we could once understand this undeniable fact it would only be another step to understand creation. Since we do not, however, understand the operations of our own finite minds, it is not strange that we cannot "comprehend the operations of that eternal infinite mind, who made and governs all things, and whom the heaven of heavens cannot contain." ⁶

Locke is inconsistent with his own general position when he first says that intuition and demonstration can afford us knowledge only of the agreement and disagreement of our ideas with one another, and then proceeds by intuition and demonstration to establish the existence of God, whom he believes to exist not merely as an idea in our minds like mathematics and morality, but as an independent being in

external reality. In Locke's philosophy, arguments for the existence of God could properly be based only on sensitive knowledge and merely afford probability. They, however, could do that much, at least. Locke deserves credit for putting his finger on what for the evolutionary philosophies of religion of our own time is still a principal argument for the existence of God; namely, that it is more difficult to think of life and mind having arisen out of dead and unconscious matter or energy than it is to regard life and mind as the products of a creative intelligence operative in nature.

While Locke apparently thought it possible to develop a system of ethics empirically independent of theological considerations, the emphasis in the scattered passages in which he refers to morality is decidedly theological. From the existence of God with infinite power, goodness, and wisdom, it follows that it is the duty and interest of mankind to obey His commands. While men have no innate ideas, they do have an innate uneasiness or desire to experience pleasure and to escape pain in this life and in the next. (Locke is at bottom an egoistic hedonist.) The true ground of morality is "the will and power of God, who sees men in the dark, has in His hand rewards and punishments, and power enough to bring to account the proudest offender." ⁷ God has by an inseparable connection joined together individual virtue and public happiness, and it is to everyone's advantage to act accordingly. God has so arranged matters that, actuated by the desire for pleasure, man will empirically evolve a moral code. God has given man reason with which to recognize the truths of morality by demonstration. God further has revealed the principles of morality in the Scriptures. So experience, reason, and revelation combine to establish morality upon firm foundations.⁸

A man is morally responsible to God and his fellow men for his conduct. For his mind has the power either to consider any idea and the consequences of any action, or to refuse to do so. Between alternatives that are possible, so far

as external circumstances are concerned, the mind always is free to make a selection. This it does in accordance with its innate desire for pleasure and aversion to pain. Men always judge present good (pleasure) and evil (pain) correctly, but they do not always exercise their freedom to deliberate long enough before action to know what will bring most happiness in the long run. Even when they do know this, desires for present pleasures are sometimes too vehement, as in the cases of the drunkard and the spendthrift. Although Locke's discussion of the problem of the freedom of the will is somewhat obscure and perhaps vacillating, he should on the whole be classified as an indeterminist.⁹

Locke, as we have seen, in the *Essay on Human Understanding* maintains that the existence of God and the principles of morality can be established by human reason. Revelations from God in the Scriptures afford further knowledge; they are not "contrary to reason" and are attested by miracles. Locke is willing to accept the Biblical miracles because although "above reason," they are free from logical absurdities and so not contrary to it. Nothing, indeed, can be accepted on the claims of revelation that is directly contrary to reason which "must be our last judge and guide in everything."¹⁰ Since "we can never receive for a truth anything that is clearly and distinctly contrary to our clear and distinct knowledge,"¹¹ the alleged revelations of the visionary sectaries and "enthusiasts" of the seventeenth century must be rejected by reasonable men, although those who advocate them he apparently thinks should be tolerated so long as they do not make public disturbances.

In *The Reasonableness of Christianity*, Locke vindicates the Christian religion on the ground of its intrinsic reasonableness. Christ restored immortality to mankind upon only three simple conditions: belief in him as the Messiah; repentance; and forgiveness of others. These principles any plain man can understand, and they are all that is essential to salvation. Once a man has become convinced of their

truth, a further study of the Bible will lead him to accept the other truths taught therein. In this spirit Locke wrote a commentary on certain of the epistles of Paul. Of these epistles he elsewhere says, "the epistles are written on several occasions; and he that will read them as he ought, must observe what in them is principally aimed at . . . We must not cull out . . . here and there a verse . . . The epistles, most of them, carry on a thread of argument . . . and to consider the texts as they stand and bear a place in that, is to view them in their due light, and the way to get the true sense of them." ¹²

We are likely to think of Locke today as a very cautious defender of traditional Christianity, because we compare him with some of the later men of the Enlightenment, like the Deists. At the time when he wrote, the last decade of the seventeenth century, he was taking an extremely advanced position in reducing what is essential in Christianity to a few simple propositions, and in rejecting everything in religion that is contrary to reason. There is no doubt that he opened the road to the Deists of the eighteenth century, who soon went far beyond Locke, and rejected as contrary to reason all that cannot be established by it; thus they eliminated everything based on revelation and miracles, and reduced religion to what can be established on purely rational foundations. Locke was an unintentional forerunner of Voltaire and other skeptics and materialists of the eighteenth century.

Since according to Locke the really essential features of Christianity are reasonable, and intelligible to a plain man, he advocates entire freedom on inessentials, among which he implicitly includes the doctrines of the Trinity and other metaphysical complexities which he did not find in the Bible itself. He wrote four voluminous *Letters on Toleration*. The civil state or commonwealth seems to him "a society of men constituted only for the procuring, preserving and advancing their own civil interests such as life, liberty and property." In forming civil governments, citizens did not lay down their

individual religious rights "because no man can so far abandon the care of his own salvation as blindly to leave it to the choice of any other, whether prince or subject; to prescribe to him what faith or worship he shall embrace." ¹³ Locke goes further than Spinoza in advocating for citizens not merely freedom of thought and speech in matters of religion, but also freedom of public worship in churches of their own choosing.

The only reservations to complete religious toleration which Locke thought necessary come under three heads. First, he would not permit the propagation of "opinions contrary to human society or to those moral rules which are necessary for the preservation of civil society." ¹⁴ Next, he would in some way—he does not definitely say how, but apparently only so far as is practically necessary for the security of the government—restrict the activities of those who think that "faith is not to be kept with heretics" and that "kings excommunicated forfeit their kingdoms." He apparently had Roman Catholics in mind, and feared that they would not remain loyal to their oaths of allegiance to William and Mary, whom they regarded as excommunicated heretics, and that they would engage in conspiracies for the restoration of the Stuarts. (The activities of Roman Catholics in the rebellions of 1715 and 1745 furnish a justification of Locke's fears.) The third exception is atheists. "Those are not at all to be tolerated who deny the being of God. Promises, covenants and oaths, which are the bonds of human society, can have no hold upon an atheist. The taking away of God, though but even in thought, dissolves all. Besides also, those that by their atheism undermine and destroy all religion, can have no pretence of religion whereupon to challenge the privilege of a toleration." ¹⁵ The exclusion of atheists would follow from Locke's belief that all morality rests logically upon the existence of God, and that to deny this would undermine all moral and civil obligations. On the other hand, Locke warns against the injustice of accusing

persons of atheism merely because their religious views differ from those of the established church.¹⁶ According to Locke's view full toleration seemingly ought to be granted to Jews, Mohammedans, and all other persons who accept the common principles of morality and can be relied upon to be loyal subjects of the new government of England. Locke's influence did much to educate public opinion in England to support the government in its policy of exercising wider religious toleration than any other European country during the period of the Enlightenment.

VIII. POLITICAL PHILOSOPHY

Locke's *Treatises on Civil Government* were written, as he says in the Preface, "to establish the throne of our great restorer, our present King William; to make good his title in the consent of the people; which being the only one of lawful governments, he has more fully than any other prince in Christendom; and to justify to the world the people of England, whose love of their just and natural rights, with their resolution to preserve them, saved the nation when it was on the brink of slavery and ruin."

Like Hobbes, Locke thinks of the establishment of the civil state as the result of a social contract, and that the state of nature that preceded it was one of perfect freedom and equality. Unlike Hobbes, however, he does not believe that the state of nature was a condition of license. In it men knew that no person ought to harm another in his life, health, liberty, or possessions. As evidence, Locke cites the reports of travellers, and uses as an analogy the tacit recognition and occasional compacts that independent governments make with one another.¹⁷ In the state of nature, in which there was no constituted authority to redress wrongs, it was the right and duty of every man to protect himself as well as he could, and to inflict punishment on evildoers. As further evidence Locke instances the practice of modern govern-

ments when they punish an alien of another country, and he thinks that despotic rulers in lands where there is no constitution constantly exercise this right over their subjects, often abusing it to the extent that their subjects are worse off than if they were in the original state of nature. Since in the latter, wrongs could be redressed only by violence exercised in accordance with the arbitrary judgment of individuals who felt themselves injured, there was continued danger of fights, wars, and confusion.

In order to escape all this, and to gain greater security, men through voluntary compacts formed political communities, and thereafter the communities instituted governments. In making a social compact, each individual transfers his power, not to the king (as Hobbes had supposed true of England) but to the community, so that thenceforth the decision of the community becomes law. Since the creation of a particular form of government by a community follows the prior organization of the community itself, it is possible for the community to change the government without dissolving itself. The Revolution of 1688 doubtless seemed to Locke and his readers proof of this; one king had been dismissed and another called to the throne with a very little confusion in the country. The facts were quite different from what they had been at the overthrow of Charles I, when Hobbes concluded that a revolutionary alteration of the form of government necessarily implied return to the disorder of the state of nature.

Living in a commercial age, and writing in defense of a revolution whose purpose had largely been to secure the rights of business men and other property holders against royal interference, Locke thought that the principal natural rights which society preserves and whose violation by a government justifies a revolution, are those of life, and as necessary to its normal continuance, liberty and property. For the security of the people, governmental powers should be divided between the legislature and the executive, and

if disputes arise between the two, the people, whose agents both are, have the right to make the final decision. If a government refuses to accede to the wishes of the people, the latter, after they have previously protested in vain in every peaceful manner possible, have the right to resort to arms and make "an appeal to Heaven" to recognize the justice of their cause.

The American Declaration of Independence of 1776 was conceived in accordance with the philosophy of Locke. In it the revolting colonists recount repeated violations of their natural rights by the government of England, against which they have vainly protested, and they declare that they are now obliged to resort to arms and set up an independent government. They appeal to Heaven and ask for the approval of a candid world. The American Constitution of 1787 also shows the influence of Locke. It is a compact of the people, it entrusts limited powers to the federal government, and carefully distinguishes the legislative and executive functions from each other. In consequence of the influence of Montesquieu, whose political philosophy was thought to be an advance upon Locke in this detail, the judiciary is made independent of both legislature and executive.

The origin of property rights Locke found in *first occupancy mixed with labor*. In primitive conditions, when there was land in abundance, the man who enclosed a piece of land and cultivated it acquired a moral right to the ground as well as to its produce. (The American homestead laws, under which many settlers acquired titles to land which they had occupied and improved, were an application of Locke's theory.) With the invention of money, Locke observes that men become able to accumulate wealth which need not be immediately consumed. Locke was one of the forerunners of the science of political economy and wrote a treatise on the consequences of the lowering of interest and raising the value of money. His view that capital is the product of labor was in the nineteenth century to give rise

to socialistic theories of which Locke would have thoroughly disapproved.

IX. PHILOSOPHY OF EDUCATION

In *Some Thoughts Concerning Education*, Locke, who had tutored several boys with marked success, published with additions a series of letters which he had previously written to a friend who had asked his advice as to the best way to bring up his young son. The book attracted wide attention, passed through several editions during Locke's lifetime, and has remained one of the great educational classics. "A sound mind in a sound body is a short but full description of a happy state in this world," he begins by saying, and from his medical and pedagogical experience he gives detailed instructions on diet, clothing, and exercise which were regarded by many at the time as helpful for bringing up healthy children, and most of which would probably still be considered good advice.

In some passages he writes like a modern psychological behaviorist: The child's mind is like a piece of putty; it is impelled only by innate desire for pleasure and aversion to pain; parents and teachers can mould habits as they will. In other places he insists that careful observation should be made of a child's capacities and interests, and the business of the educator is to allow these to develop in a natural and wholesome manner, with careful regard for the child's personality.

The main objectives in education are *virtue*, *wisdom*, *breeding*, and *learning*. Virtue is of primary importance; as one would expect from Locke's views on ethics, the first thing to do is to instill in a child love and reverence for God, and teach him to pray. He should be shielded against the stories of ghosts, spirits, and goblins (with which children were then often terrified). He should be led to form the habit of always telling the truth on every occasion. Wisdom comes with ripening years, but a child can be taught to face facts,

think straight, and not be satisfied until he gets correct explanations of things which he is able to understand. The essential principle that underlies good breeding is "not to think meanly of ourselves, and not to think meanly of others." Learning should be made interesting to the growing child. His studies should be mixed with his games and plays. He should be given the opportunity to make toys for himself and to learn by doing. Foreign languages should be acquired so far as possible by conversation rather than by memorizing rules of grammar. If reading is made a delight, a boy will continue to study and become a cultivated man when he grows up; but if his reading appears to him as an unpleasant task, he will have no taste for it in after life.

Parents should be firm in asserting their authority when children are small, but use corporal punishments as little as possible. It is better to incite children through their desire for esteem and fear of disgrace than by any kind of rewards or penalties. Locke apparently means that a child should be led to appreciate what he needs to learn in order that he may respect himself and be respected by others. As children grow older, parents should take them as much as possible into their confidence, and discuss their own problems with them, encouraging them to make suggestions regarding what ought to be done. In this way the gap between the generations will largely be bridged, and parents and children will remain friends so long as both live.

In the *Conduct of The Understanding*, Locke emphasizes the importance of early forming correct habits of thinking. We should not be surprised that people in middle life are the slaves of prejudices, that they constantly jump at conclusions, and often cannot distinguish between their own wishes and fancies and actual facts. "Few men are from their youth accustomed to strict reasoning, and to trace the dependence of any truth, in a long series of consequences, to its remote principles, and to observe its connection, and he that by frequent practice has not been used to this em-

ployment of his understanding, it is no more wonder that he should not, when he is grown into years, be able to bring his mind to it, than that he should not be on a sudden able to grave or design, dance on the ropes, or write a good hand, who has never practised either of them." Mathematics is a particularly useful subject to teach young men to think consistently. Locke also commends religion and theology for the purpose. It is important to understand the correct meaning of words in order to be able to speak, read, and write intelligently. Locke is often classified as one of the proponents of education as purely formal discipline. This can hardly be correct, as he strongly disapproved of the formal drill in grammar and logic on which emphasis was chiefly placed in his school days at Westminster and his undergraduate years at Oxford. It seems more reasonable to suppose that what he had in mind is precisely the kind of training that almost every teacher in a liberal college today desires his students to receive: to think coherently, read discriminatingly, to separate the essential from the irrelevant in any field to which they may apply themselves. This is probably what Locke principally meant by "wisdom" and proper "conduct of the understanding."

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CHAPTER IX

BERKELEY

I. LIFE

George Berkeley (1685-1753), an Irishman of English ancestry, entered Trinity College in Dublin in his sixteenth year, where he had a brilliant career, first as a student and later as an instructor, and where in due time he took orders in the protestant episcopal Church of Ireland.¹ His keen mind, bold imagination, and lovable personality made him a leader among the young men of the faculty, whom he seems to have organized into a society for the discussion of philosophical, scientific, and other topics. The new philosophies of Locke, Descartes, and Malebranche and the science of Newton were stirring the men of Trinity College to think, and the Deism of Toland, an Irishman who wished to eliminate from Christianity the miracles and all that he thought mysterious, was causing considerable commotion among them. The young Berkeley became an ardent defender of the faith, publishing his *Treatise on the Principles of Human Knowledge* in 1710, and the other book for which he is most famous, *Three Dialogues Between Hylas and Philonous*, three years later. The philosophy of these works appeared even more paradoxical then than it does today, and provoked many criticisms. It was seen, however, to be firm in its support of Christianity and orthodox Protestantism. Moreover, Berkeley had ready answers to all objections. He soon won general good will and some converts.

Visiting London in 1713, he made a favorable impression upon the great literary men of the age,—Swift, Steele, Addison, and Pope, as well as the intellectual circle of the bril-

liant young Princess of Wales (afterward Queen Caroline, consort of George II). After some years spent in foreign travel, Berkeley returned to England full of enthusiasm for the future possibilities of the new world, wrote the poem containing the frequently quoted line "Westward the course of Empire takes its way," and actually persuaded Parliament to vote a grant of £20,000 for the establishment of a new college in the Bermudas which should train ministers of the gospel for the colonists, as well as educate and civilize the Indians. He believed so ardently in his philanthropic project that he left his post as Dean of Derry with an income of £1500 a year in order to become head of the proposed college at something like £100 a year, although he possessed little means of his own, and had just married a young wife of whom he said, "I chose her for the qualities of her mind and her unaffected inclination to books. She goes with great cheerfulness to live a plain farmer's life, and wear stuff of her own spinning wheel."

With Irish impracticality he did not delay until he had actually received the money for the new college, and sailed, not to Bermuda, but *via* Virginia to Rhode Island, where he sojourned for three years waiting for the money to come. He was well received in America, and won adherents to his philosophy among ministers and college professors. He wrote eloquent descriptions of the natural beauties of New England, which he afterwards published in *Alciphron*.² With Berkeley overseas, and unable to press his cause in person, sober Englishmen began to doubt the practicability of his educational scheme. The prudent prime minister, Sir Robert Walpole, delayed payment of the grant, and at last Berkeley's friends had to inform him that the money never would be paid.

Berkeley gave his library to Yale College, and returned to England a brokenhearted man. He accepted the modest bishopric of Cloyne, in the south of Ireland, where he led a retired life, declined offers of better posts, tried to improve

the wretched economic conditions of the peasants, and busied himself with scholarly studies, publishing books and articles from time to time. While in America he had learned that the colonists employed tar water, a remedy of Indian origin, as a preventive of smallpox. During a serious epidemic at Cloyne, he used it with what he thought were beneficial results. He came to believe that tar water was a stimulating tonic that would aid the vital forces of the body generally. Presently he startled the world with a book entitled *Siris: A Chain of Philosophical Reflections and Inquiries Concerning the Virtues of Tar Water and Divers Other Subjects Connected Together and Arising One from Another*. Some admirers believe that this book contains his profoundest insights into metaphysics; others do not. The public at the time was less impressed by the metaphysical theories of the book than by the medicinal virtues claimed for tar water. This became for a while the popular specific for all complaints. Henry Fielding, when he was dying of the dropsy, thought that he received some benefit from it, and said in the Introduction to his *Journal of a Voyage to Lisbon*, "perhaps it may truly be asserted that no other modern hath contributed so much to make his physical skill useful to the public" as Berkeley in his "discovery of the virtues of tar water." (Berkeley and Fielding were mistaken, and tar water did not long remain of much consequence in medical practice.)

When Berkeley's health began to break, he decided that he would like to spend his last days in Oxford. He accordingly sent a letter of resignation of his see, but George II, remembering the youthful Berkeley of whose merits the now deceased Queen had thought so highly, refused to allow him to lose his bishopric, but permitted him to remove to Oxford, while someone else looked after the unimportant duties of the Anglican diocese of Cloyne, where there were few Protestant residents. One afternoon a few months after Berkeley's arrival at Oxford, while sitting quietly at tea and listening

to his wife read from the fifteenth chapter of First Corinthians, the gentle heart of the good bishop ceased to beat, and when his daughter offered him another cup, it was discovered that he was dead.

II. REJECTION OF ABSTRACT IDEAS

Like previous modern philosophers, Berkeley begins his *Principles of Human Knowledge* by clearing away what he believes to be the false presuppositions of the past. Locke had disposed of innate ideas. Berkeley, pushing empiricism further than Locke had done, rejects abstract ideas. While Locke had indeed insisted that all that exist are particular things, he nevertheless thought that by comparing these with one another it is possible to abstract common characteristics and give them names, such as "extension," "color," "motion," "man," and "animal," and he even affirmed the abstract idea of a "substratum" in which the qualities of material objects subsist, although he admitted that we have no direct experience of such a substratum, and that we are unable either to discover its real nature or the relation it bears to the ideas in our experience which we associate with it. Berkeley insists that we never experience any such abstract ideas, and that the words by which they are supposed to be designated are merely names and nothing more; there is in reality nothing whatever that corresponds to any of them.

We never perceive "space" or bare "extension," which is neither line, nor surface, nor solid; and we can form no idea of anything of the kind. It is impossible to form an idea of a triangle which is "neither oblique nor rectangle, neither equilateral, equicrural, nor scalenon, but *all and none* of these at once." It is true that in geometry a figure of a particular triangle may be drawn, while the definition employed—"a plane surface comprehended by three right lines"—ignores the specific peculiarities of the particular one before

us, so that the proposition proved applies to all triangles whatever; but this does not mean that we actually have an *abstract idea* of "triangle" in general. It is impossible to form an abstract idea of "color" in general that is neither red, nor blue, nor white, nor any other determinate color. Nor can we form an abstract idea of "man" in general; every man has a definite color and stature. Still less can we form the even more abstract idea of "animal," with only the constituent features of "body," "life," "sense," and "spontaneous motion," without its body being of any particular shape or figure, without covering of hair or feathers or scales, nor yet naked, nor with any particular kind of spontaneous motion like walking, flying, or creeping.

Adhering strictly to the empirical doctrine that all knowledge comes from simple ideas of sensation and reflection, Berkeley believes that it is impossible to arrive at any abstract idea that appears in neither, and that any word used to designate common features of particular objects of our experience can only be a name, and that it cannot describe any real fact. This is *nominalism*: abstract ideas or universals are mere names.

The use of words that correspond to nothing in actual experience has dimmed the thought of previous philosophers; they have confused mere words with realities, and thus having themselves raised a dust, complain that they cannot see. The remedy is, Berkeley urges, to attend to ideas actually experienced, and to keep out of thought so far as possible the words which have been used to signify them. "We need only draw the curtain of words, to behold the fairest tree of knowledge, whose fruit is excellent, and within the reach of our hand." No one can be "led into an error by considering his own naked, undisguised ideas."

Many introspective psychologists agree with Berkeley that it is impossible to form an *image*, or mental picture, of a "triangle" or a "man" in general without making it specific, while others believe that generic images can be formed that

are vague as to details. However this may be, modern rationalists insist that an image can have a *meaning* more general than itself; hence, Berkeley is mistaken in supposing that what is possibly true of images must hold for the ideas or meanings which they signify. Indeed Berkeley himself appears to concede this in the case of triangles when he admits that theorems of general application can be understood and demonstrated, notwithstanding the fact that they can be illustrated only by diagrams that have to be specific. Everybody would agree with Berkeley that ideas must not be confused with the words used to signify them,—that attention should be concentrated on the former; and Berkeley practiced so well what he preached that his earlier published writings, with the possible exception of those of Hobbes, are the clearest philosophical literature that has ever appeared in the English language.

III. MENTALISM

Berkeley's rejection of abstract ideas opens the road to the exposition and defense of his own position. This can be stated in a few sentences. All reality is known through experience; that is, through sensation and reflection. Everything that exists is either *perceived*,—that is, an idea; or else it is a mind that *perceives* ideas. There is no such thing in reality as matter. This position is often classified as a form of *empirical idealism*, or *personal idealism*, or *subjective idealism*. These terms are all rather broad, and include views that differ considerably from Berkeley's in some respects. A much better though not so common designation is *mentalism*, since Berkeley claims that all that is real is mental,—minds and their contents.

Berkeley has plausible arguments for this position. He convinced many of his contemporaries, and mentalism has continued to have a considerable number of supporters in every subsequent generation down to our own time, although the

mentalists have always been in a minority. Berkeley's arguments are clear and cogent, and not easy to refute. The reader who is here making his first acquaintance with Berkeley is advised to follow the exposition closely, and not attempt to raise objections of his own until he is sure that he understands what Berkeley means. It is impossible to see where he is wrong—and nobody today believes that he is altogether wrong—until one understands his arguments, which are, after all, quite simple.

"To be is to be perceived," says Berkeley; *esse est percipi* in all cases except when "to be is to perceive" and *esse est percipere*. Take any particular object that lies before you in the field of sense perception, say an apple. This is made up of a certain color, taste, smell, figure, consistence, and other sense qualities, which you observe to go together. The same is true of other collections of ideas, which respectively constitute a stone, a tree, or a book; these may arouse in you pleasant or disagreeable feelings, and excite passions of love, hatred, joy, grief, and so forth. All that you are ever aware of when you perceive any so-called material object is a combination of sense qualities plus your consciousness of your own existence as a thing entirely distinct from your perceptions. You are not aware of any *material* substratum in which sense qualities inhere; they have no existence except in your own mind or in the minds of other spirits.

Berkeley accordingly *rejects Locke's distinction between primary and secondary qualities*. Extension and motion so conceived would be abstract ideas, the absurdity of which he has already shown. The very same arguments that are thought to prove that colors, tastes, and temperatures exist only in the mind can be brought against extension, figure, and motion; our ideas of them vary according to their distance from us. Number is dependent on men's understanding; the same extension is one, or three, or thirty-six as we think of a yard, or feet, or inches; it is strange to think how anyone should have given number an absolute existence out-

side of the mind. Unity cannot be found by the mind to exist by itself; it is merely an abstract idea. (You can see "one apple," but not "one" in isolation from every object.)

If there were any evidence of the existence of external bodies outside of the mind, it would have to be either by sensation or by reason. No such evidence certainly is afforded by sensation, for our senses give us only sensations; they do not reveal to us the existence of unperceived things without the mind that are either like or unlike what we perceive. Nor does reason furnish us with any ground for believing in the existence of bodies without the mind; even the believers in material objects confess that they are unable to explain in what manner such objects could act upon the mind and imprint ideas upon it. If there were external bodies, it would be impossible that we should ever know it; and if there were not, we should have the very same reasons to think that there were that we have now. You say that there is nothing easier than to imagine trees in a park or books in a closet without anybody perceiving them; but when you do so *you* imagine them and they are present in your mind; you cannot conceive the existence of anything without its being present in your mind when you do so. The absolute existence of unthinking things apart from a mind that thinks them are words without any meaning.

Thirdly, in refutation of Locke, "all our ideas, sensations or the things which we perceive, by whatsoever names they may be distinguished, are visibly inactive; there is nothing of power or agency included in them. So that *one idea* or object of thought *cannot produce* or make *any alteration in another.*" Berkeley thus insists that all the ideas that we attribute to the outer world are purely *passive*; it is impossible for any idea to do anything or be the cause of anything. This doctrine of the *passiveness of ideas* of the outer world is an important feature of his philosophy. From it follows the conclusion that extension, figure, and motion cannot be the cause of our sensations. In this respect Berkeley shows

the influence of Malebranche and perhaps of other Occasionalists, and makes God the cause of such ideas.

It is quite true that "we perceive a continual succession of ideas, some are anew excited, others are changed or totally disappear." There must be a cause on which these ideas depend, a cause which produces and changes them. It has just been seen that this cannot be any quality or combination of the ideas themselves. And it cannot be *material* substance; for none such exists. It must therefore be "an incorporeal active substance or spirit." "A spirit is one simple, undivided, active being; as it perceives ideas it is called the *understanding*, and as it produces or otherwise operates about them it is called the *will*." Berkeley believes as thoroughly in *spiritual* substance, or the self, as Locke. He admits that we no more have an *idea* of spiritual substance than we do of material substance, but he does not reject it on this ground as an abstract idea. "For I certainly have a *notion* of myself or spirit; I can excite some ideas in my mind at pleasure, and vary them as I please, and in this sense my mind, unlike my ideas, is *active*. Since my mind can be active in reference to ideas, it is clear why I can have no idea of my own mind, since all ideas are passive." (Berkeley does not succeed in making any clearer than is done in this paraphrase of his statements the difference which he is trying to make between *ideas* and *notions*. He affirms that we have a notion of ourselves as a matter of direct experience, and that we are warranted by inference in forming notions of other selves, *i.e.*, of other finite persons and of God; and he implies that notions are somehow different in nature from ideas. However, nearly all philosophers since his time, with the exception of Hume, admit that we actually are aware of our own selves, and that this awareness is different from our consciousness of our sensations and of external objects.)

Now while I am aware of my own self by the fact that I can imagine some ideas as I please, and engage in flights of fancy, I find that the ideas that I perceive by my senses as

constituting what are popularly called objects of the outer world are *involuntary on my part*. Since I have not produced them, and they have not produced themselves, there remains only one possible way to explain their origin. They must have been produced by *some other will or spirit, namely God*.

So Berkeley explains the constancy and regularity of the *involuntary ideas*, popularly called the objects of the outer world, by attributing them to the activity of God. It is easy to distinguish these involuntary ideas from the voluntary ideas produced by our own imaginations. The involuntary ideas have greater vividness, steadiness, order, and coherence; they cannot be excited at random, and they follow one another in a regular order or series. This regularity enables us with foresight to plan our actions in the practical conduct of life; the description of them is the work of science.

It is far more reasonable to attribute to God the regularity of the involuntary ideas, which constitute for us the world, than to suppose that they inhere in an unknown substratum called matter. We know what a self or spirit is. Each of us experiences one in himself. To attribute ideas not of our own making to another spirit is to explain the unknown by the known; to assign them to matter would be to explain the unknown by the still more unknown, *ignotum per ignotius*. One ought in philosophy, as in science, to base explanations on actual experience, and not to ground them on abstract and unfounded speculation.

IV. HOW BERKELEY ANSWERS OBJECTIONS TO MENTALISM

Berkeley has ready answers to all of the ordinary objections that at once suggest themselves. He must have discussed his views frequently with his younger colleagues at Trinity College, and probably he was able to silence if not wholly convince everyone who argued with him.

¶ The first objection which he answers in the *Principles* is

that according to his philosophy "all that is real and substantial in nature is banished from the world"; the sun, moon and stars, houses, rivers, mountains, trees, stones, even our own bodies, become mere fanciful illusions. Berkeley replies that according to his view all these remain as secure and real as ever. He does not question that the things we see with our eyes and touch with our hands really exist. They are involuntary ideas, given us by God, who maintains them in accordance with the constant and regular laws of nature.² All that Berkeley rejects is the material substance of philosophers like Locke. If it sounds harsh to say that "we eat and drink and are clothed with ideas," this can be attributed only to the fact that we are unaccustomed to use the word "ideas" as Berkeley does; he agrees that we are fed and clothed with "the immediate objects of sense," which are, upon his view, as genuine and real, and as sharply opposed to fantasies of our own creation, as any other.

ii Berkeley gives a similar answer to a second objection,—that there is a great difference between "real fire and the idea of fire, between dreaming or imagining one's self burnt, and actually being so." Real pain, everyone agrees, is very different from imagined pain; yet both are universally admitted to exist only in the mind. Real fire and real pain are involuntary ideas given us by God in accordance with constant laws, and are followed by effects equally involuntary on our part; our own voluntary and imaginary ideas are wholly different. Dr. Samuel Johnson did not refute Berkeley when he kicked a stone and argued that the stone must be real because of the pain he felt in consequence; Johnson has missed Berkeley's real point.³

iii A third objection is that "we see things actually without and at a distance from us" and it is "absurd that these things which are seen at a distance of several miles, should be as near to us as our own thoughts." Berkeley answers this by referring to his *Essay toward a New Theory of Vision*, in which he had given one of the first psychological explana-

tions of the perception of space. The ideas of sight are *signs* which by experience we learn to associate with ideas of touch, so that when we get certain visual impressions we know what ideas of touch we shall receive if we move in a certain direction and come into tactual contact with the objects of visual sensation. Both the ideas of vision and touch exist only in our own minds and those of other spirits, including God who imparts them to us.

iv) A fourth objection is that according to Berkeley's view it seems to follow that "things are every moment annihilated and created anew." Whenever a man shuts his eyes, all the objects in his field of vision are reduced to nothing, and when he reopens his eyes they are again brought into existence. Berkeley's best answer to this objection is that in his view all the objects of the outer world, which really are ideas, *endure continuously in the mind of God*, whether we perceive them or not.⁴ The real world is as objective in Berkeley's philosophy as in any other, and it consists of the same observable qualities; he differs only in that he makes these qualities inhere in spiritual substances or minds instead of matter. For Berkeley the objects of the outer world are entirely real for all practical purposes. Hence the significance of Byron's lines:

"When Bishop Berkeley said 'there was no matter'
And proved it—'t'was no matter what he said."⁵

Therefore, in the practice of medicine, Berkeley was no mental healer; he did not try to cure diseases by the mere exercise of thought; he employed tar water. The mind, he evidently believed, can affect the body and external objects only in accordance with the laws of nature. He would have had no patience with Christian Science.

4) The fifth objection which Berkeley answers is that if extension and figure existed only in the mind, it would follow that the mind itself must be extended and figured. Berkeley's reply is that extension and figure exist in the mind only as

its *ideas*; they are not attributes of the mind itself, just as colors like red and blue according to Locke and the physicists are thought to exist only in the mind without implying that the mind itself is colored.

A sixth objection is that great progress has been made in physics in explaining natural phenomena in terms of matter and motion, and Berkeley's doctrine would imply the rejection of the natural sciences altogether. Berkeley's proper answer here, in the light of what he says elsewhere, ought to have been that he is not challenging the validity of physics or any other natural science in its observation of phenomena. A physicist who believed in mentalism and one who accepted materialism could work together in perfect harmony in carrying on and describing laboratory experiments. They need differ on nothing of scientific importance. If they step out of the domain of natural science into that of metaphysics, an issue will indeed arise between them; the materialistic physicist will then maintain that the laws of physics are descriptions of the movements of actually existing but invisible material particles, whereas a Berkeleyan mentalist will say that these laws furnish us with *signs* for the prediction of the appearance of ideas of sense which God furnishes us in the constant and regular manner which physics records in its descriptive formulations. Various other objections are easily met by Berkeley. If it seems absurd to speak in terms of his philosophy, instead of in the ordinary way, the answer is that "we ought to think with the learned and speak with the vulgar." In ordinary language we find it convenient to continue to say that the sun rises and sets, although we know that the true Copernican explanation is quite different. The Copernican astronomy itself furnishes no objection to Berkeley's philosophy; what it signifies for him is that if we could look at both the earth and the sun from a neutral position in space, we should perceive the earth moving about the sun. If Berkeley were living today, he could say that his doctrine,—that all that exist are ideas

and the spirits that perceive them,—is compatible with the evolution of heavenly bodies and the development on the earth of inorganic matter and the lower forms of life before the advent of man. The previous epochs in the history of the world would be a succession of ideas created by God and experienced by Him and whatever other spirits may then have been in existence. There is no objection on purely scientific grounds that cannot successfully be met by an adherent of Berkeley's mentalism.

V. CONSEQUENCES OF BERKELEY'S MENTALISM

The consequences that Berkeley claims for his philosophy are to some extent epistemological and metaphysical, but mostly theological.

The removal of matter from the world he thinks *eliminates all ground for skepticism* and makes knowledge possible. So long as philosophers suppose matter to exist, they are perplexed with such questions as whether matter can think, whether it is infinitely divisible, and how it operates on minds. Furthermore, if matter is thought to exist with the primary qualities, independent of the mind, while it is supposed that through our senses we perceive only the appearances and not the real qualities of things, skepticism is inevitable. There is no way by which we can directly observe the real nature of things outside of our minds. Berkeley saw the difficulty which has to be encountered by every advocate of epistemological dualism (the doctrine that we perceive ideas and not the real world itself): How can we gain any assurance that our ideas directly resemble, or correspond to, external things? If with Berkeley we agree that we directly perceive things as they are (for him ideas of sensation) and that there is no other external reality to know except other spirits, similar in their essential nature to ourselves, we are delivered from skepticism and are assured of the possibility of knowledge.

As another consequence, *atheism is overthrown*, and *the existence of God is made absolutely certain*. No man doubts that other persons have minds. Yet he is directly conscious only of his own self or spirit, of which he becomes aware in his voluntary acts. He infers the existence of other persons because their actions are similar to his own. Only comparatively few of the events that anybody observes lead him to infer the activity of this or that particular man as their cause. On the contrary, wherever we look, we involuntarily receive ideas that we cannot attribute to the activity of any of our fellow men, and these we should acknowledge come from an infinite spirit. So we have even more evidence of the existence of God than we have of our fellow men. "There is not any one mark that denotes a man, or effect produced by him, which does not more strongly evidence the being of that Spirit who is the Author of nature. He alone it is who 'upholding all things by the word of his power,' maintains that intercourse between spirits, whereby they are able to perceive the existence of each other." "We do not see a man, if by *man* is meant that which lives, moves, perceives, and thinks as we do; but only such a collection of ideas, as directs us to think there is a distinct principle of thought and motion like to ourselves, accompanying and represented by it. And after the same manner one sees God; all the difference is, that whereas some one finite and narrow assemblage of ideas denotes a particular human mind, whithersoever we direct our view, we do at all times and in all places perceive manifest tokens of the divinity; every thing we see, hear, feel, or anywise perceive by sense, being a sign or effect of the power of God; as is our perception of those very motions which are produced by man." ⁶

The *natural immortality* of the soul is another consequence of Berkeley's philosophy. If the soul be thought of as material, or as dependent upon the body, its mortality is inferred. But what have been supposed to be physical bodies are in reality merely passive ideas in the mind, and the mind

is utterly different from any of its ideas. The soul is indivisible, incorporeal, and unextended; the motions and changes, decays and dissolutions which we see befall natural bodies cannot affect an active, simple, uncompounded substance, and the latter is *naturally* immortal; that is, it cannot be dissolved by the ordinary powers of nature, although it might be annihilated by the direct act of God.⁷ Berkeley is here repeating an argument accepted by Descartes and Locke, which had come down from Plato.⁸ Since the soul is a simple and indivisible substance, not composed of parts like the body, it cannot be dissolved; for only things that are composite can be decomposed and destroyed. This conception of the soul as a simple substance was later refuted by Hume and Kant, the latter of whom we shall find advancing arguments for immortality based on different considerations.

The exposition that has here been given follows in the main Berkeley's *Principles of Human Knowledge*, with which the more literary *Dialogues Between Hylas and Philonous* is in general agreement.⁹ In Berkeley's later works his views changed considerably; and in the *Siris*, published toward the close of his life, his thought largely departed from the interpretation of British empiricism which made him the connecting link between Locke and Hume, and became a modified Platonism or neo-Platonism in some respects, and an anticipation of nineteenth century Kantianism and Hegelianism in others. However, the empirical mentalism which has just been outlined is what has made Berkeley famous and given him his place among great modern philosophers. It is Berkeley's mentalism which we must therefore now evaluate, with the understanding that not all that will be said is applicable to his later and possibly more profound, but certainly less influential, writings.¹⁰

VI. IS BERKELEY RIGHT?

It cannot be said that philosophers at the present time have reached unanimity in their evaluations of Berkeley.

Everybody agrees that he was one of the most important philosophers of modern times, but on many of the points on which some say that he was right, others pronounce him wrong. The reader must decide for himself, in accordance with his own philosophical preferences; whatever conclusions he reaches, he will probably be able to find some distinguished authorities who agree with him.

Extreme empiricists who continue in the tradition of John Stuart Mill believe that Berkeley advanced a step beyond Locke and prepared the way for Hume. From their standpoint Berkeley is right in believing that reality consists of groups of sensations, as well as in his general psychological approach. He was wrong in continuing to believe in spiritual substances, against which the same objections apply which he opposed to material substances, as Hume was later to establish.

Contemporary *Idealism* is of many different types, and it is hard to formulate a concise definition acceptable to all schools. *Personal* Idealists believe Berkeley proved that matter does not exist, and that reality consists exclusively of *persons* and their ideas. (Hence the name Personal Idealism.) Berkeley's chief mistake was his failure to realize that in our perception of external things our minds are *active*; instead of saying, "to be is to be perceived," he ought to have said, "to be is to be thought, or known, or experienced in some way." The creative activity of the mind is a truth recognized by idealists since Kant which Berkeley failed to grasp. While rightly emphasizing the distinction of human persons from one another and from God, Berkeley did not develop the significance and importance of personality sufficiently. He was, however, a great figure in the development of modern personal idealism. In introductory courses he is often studied preliminary to the more adequate but complex interpretations of contemporary personal idealism.

Absolute Idealists believe that all reality is included within one complete system present to an all-comprehensive Mind,

called the Absolute. They think that Berkeley went too far in denying the existence of matter altogether, although they credit him with rightly insisting that everything in reality is dependent on Mind. They believe that in his earlier writings, like the *Principles of Human Knowledge*, the basis of exposition in this chapter, Berkeley put too much emphasis on the separateness of individual persons from one another and God, mistakes he tended to overcome in his later works in which he came closer to the "organic" view of reality to be advanced in the nineteenth century by Hegel. For this school Berkeley is right in thinking that all of reality is included within the mind of God.

There are many different types of contemporary *Realism*. All realists agree, in opposition to idealists, that at least some forms of reality exist, or theoretically can exist, without being known. Our human minds, whatever may be true of God, discover realities that exist independent of whether we know them or not, and we learn to know them as they so exist. Some realists (the "New Realists") praise Berkeley for what idealists regard as one of his chief errors; namely, his insistence that minds are *passive* in perception of sense data. Those realists who agree with Berkeley that the mind is passive in perception are likely to say that a mind is an "external relation" that does not affect objects perceived. A book lies on a table; someone picks it up and places it on a shelf. The book is unaltered in the process. So space is an external relation so far as a book is concerned, and its position in one place or another in no way alters its essential characteristics. Suppose you glance at a book and then turn your eyes in a different direction and no longer perceive it. The book is changed in no way by your looking at it or ceasing to do so. In other words, your mind or consciousness is also an external relation into which the book may enter and from which it may depart unaltered. Berkeley is to be praised for realizing this and acknowledging that objects can enter and leave our minds unaltered, and that when we per-

ceive objects they are not modified by the fact that we perceive them.

The New Realists think that Berkeley was right upon a point on which Descartes and Locke were wrong; both of the latter erroneously supposed that an idea and an object are different, so that an *epistemological dualism* arises between them; this forced them to raise the problem of how ideas can correctly resemble objects of the external world that are not ideas. Berkeley is correct in asserting the contrary position, now known as *epistemological monism*; we actually perceive the real object, not a copy of it. Berkeley's mistake was his decision that the real object perceived is an *idea*, something mental, while for this school of realists the object perceived is not mental at all; a mind is merely a relation into which a real object may enter and from which it may depart without being changed in any way. Your merely looking at any object does not alter it.

Realists of the types just referred to find Berkeley guilty of three fallacies in his arguments to show that all physical objects are ideas; that is, are mental in their very nature. The first of these is the fallacy of *initial predication*; Berkeley begs the question in advance when he places in an object the very predicates that he later professes to discover in it. Suppose that Berkeley sees a pineapple for the first time; the pineapple is then an idea in his mind; in other words, an initial predicate or characteristic of the pineapple for Berkeley is the fact that he has perceived it. He therefore concludes that a pineapple has for one of its essential characteristics the quality or predicate of being perceived by some mind. It is, however, equally conceivable that pineapples exist prior to and independent of being perceived by any mind. Suppose a child for the first time learns the letter "a" in spelling the word "man"; he should not conclude from this that the letter "a" can never exist except in conjunction with the letters "m" and "n." The letter "q" in English and certain other languages is always followed by the letter "u";

it cannot be logically inferred that this has always been true of every language.

The second fallacy alleged by the realists referred to is that of *unwarranted inference* from the fact of the *ego-centric predicament*. (The term "ego-centric predicament" is not so formidable as it at first seems. We all know what it is to be in a "predicament," an unpleasant situation of some kind, as well as what is meant by being in the "center" of a situation, and we know that "ego" is simply the Latin word for "I.") The ego-centric predicament in which I am placed consists of the fact that I am always in the center of the objects that I see all about me. I can never get out of this predicament; however far I travel, I still remain at the center of all that I see about me. From a similar predicament, Berkeley infers that nothing can exist except when some ego is present; a conclusion that does not necessarily follow. No realist claims that by calling attention to Berkeley's unwarranted inference from the ego-centric predicament, he is able to refute mentalism and establish realism. Realists put the issue in this way. Suppose we begin by admitting for the sake of argument that either mentalism or realism may be true; on either alternative the ego-centric predicament would be a fact; no one could ever be conscious of an object without being conscious of it; so the fact of the ego-centric predicament no more establishes the truth of mentalism than it does of realism. The issue will have to be settled on some other ground.¹¹ If this be granted, however, mentalism loses one of the chief arguments on which Berkeley relied.

Worse yet, Berkeley's reasoning is said by realists to imply a third fallacy, that of *Solipsism* (from *solus* and *ipse*, the self alone exists). A solipsist maintains that he alone exists, together with the ideas in his mind; there are no other persons or things in the universe. No philosopher, at least none who was not a proper candidate for an insane asylum, ever admitted that he was a solipsist in this sense.¹² The most damning charge that can be made against a philosopher is to

claim that his doctrine, if he logically thought it out to its conclusions, would lead to solipsism. Realists, as well as some other critics, claim that when Berkeley argues that since he can never perceive an object without perceiving it, it follows that nothing exists unless some mind perceives it, he ought to have gone further and said that since George Berkeley never perceives an object unless George Berkeley perceives it, George Berkeley ought to conclude that nothing ever exists except when George Berkeley perceives it. Furthermore, since Berkeley admits that he is never directly aware of other persons, but only of ideas that lead him to infer the existence of other persons, he ought to conclude that all other persons, including God Himself, exist only as ideas in George Berkeley's mind! In other words, the line of reasoning by which Berkeley thinks that he has proved "to be" is always either "to be perceived" or "to perceive," if followed to its logical conclusions, would lead to Solipsism. Perhaps mentalism could be established in some other manner, but Berkeley has not done so, and the realists believe that there is no way that this can be done because the doctrine is not true.¹³

Critical Realists, in opposition to the New Realists, agree with Locke that our ideas are not identical with the objects which they represent. They are not afraid of the difficulties of epistemological dualism, which they do not believe to be unsurmountable. Illusions prove that perceptions differ from real objects; a straight stick half immersed in water is perceived to be bent, while it really is not. We need not say that an idea cannot be like something that is not an idea. Is not a reflection in a mirror like something that is not a mirror? Is not a photograph like things that are not photographs? May we not through ideas become aware of things that are not ideas? By comparing our sensations and perceptions with one another, and with those of other persons and testing them scientifically, we are learning how to pass upon their correctness and to gain some knowledge of the real

nature of the external world. Our minds are active in perception and other cognitive processes, and we discover the nature of external reality as a result of the rational interpretation of sensuous experience. Locke, it is admitted, fell into many inconsistencies, but after all he was more nearly right than Berkeley.

Contemporary realists of both types are perplexed as to what distinction ought to be made between primary and secondary qualities. The greater stability of the former and the success of physics, chemistry, and other sciences in using them exclusively in their description of natural phenomena constitute strong arguments in favor of there being some difference between them. On the other hand, in our experience colors, sounds, odors, tastes, and temperatures do not appear to be located in our brains or in our minds, but to be connected with external physical objects. While their status in the external world is apparently different from that of the primary qualities, most realists are unwilling to go so far as Locke and to think of secondary qualities as purely subjective and mental in character, and various theories have been advanced upon the subject. Berkeley is thought at least to deserve the credit for raising the problem, and showing that it cannot be solved as easily as Locke had supposed.

Berkeley's attack on abstract ideas is not accepted by most philosophers at the present time as entirely valid. Few thinkers today accept anything like Locke's doctrine of material substance as an unknown substratum, and most would go further than Berkeley, and deny that the self or soul is a spiritual substance. But abstract ideas or universals are usually believed to be more than mere words or names. Think of numbers, for instance; Berkeley denies that they can have any meaning apart from things numbered. There are numbers, however, that no one has ever counted, and corresponding to which there probably is no group of existing objects in the universe. Are these numbers any less real on that account? No one has ever literally seen a point or a straight

line, as those terms are defined mathematically; does that make them any less real? Some realists believe that universals *subsist* as realities, although they do not in all cases *exist* as characteristics of particular things at definite positions in space and time. (In Berkeley's later years, he himself came to believe in universals.) The status of universals in reality is another of the problems which Berkeley's criticisms brought into prominence, on which philosophers have not yet come into general agreement.

From a pedagogical point of view, everybody agrees that Berkeley is one of the very best philosophers for a beginner to study. His arguments are simple and clear, and his mentalism is a startling position that provokes every thoughtful reader to reflection, and by the time he has considered the various difficulties that Berkeley raises in his mind, he has introduced himself to a great many of the problems of contemporary philosophy.

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CHAPTER X

HUME

I. PERSONALITY

David Hume (1711–1776) shortly before his death wrote a sketch of his life, which contains perhaps the most accurate estimate of a man's character that ever appeared in his own autobiography. He describes himself as "a man of mild disposition, of command of temper, of an open, social and cheerful humor, capable of attachment, but little susceptible of enmity, and of great moderation in all my passions. Even my love of literary fame, my ruling passion, never soured my temper, notwithstanding my frequent disappointments. . . . My friends never had occasion to vindicate any one circumstance of my character and conduct; not but that the zealots would have been glad to invent and propagate any story to my disadvantage, but they could never find any which they thought would wear the face of probability." Hume's biographers say that he possessed in an eminent degree the virtues that he claimed for himself, and that his chief fault, which restricted his productiveness as a philosopher, was excessive eagerness for literary fame.

Hume's father left a tiny estate near Edinburgh. His widow managed this with care, and so provided for the three children, two sons and a daughter. David, as the younger son, in accordance with the customs of the times, could hope for little in the way of inheritance, and was expected to make his own fortune. He was taught at home in childhood, and as a youth he studied for a time at the University of Edinburgh. By the close of his stay at the university when he was about sixteen (he did not graduate), he was proficient in Latin,

knew a little Greek and philosophy and had acquired a life long admiration for great literature. He had already forsaken the narrow religious views of his relatives and acquaintances, although he remained on friendly terms with them, and in fact with almost everyone throughout his life. For a short time he studied law, and once or twice began a business career, but although in after life he showed legal and business ability when occasion called for it, he had no real love for either. The boy seems to have spent most of his time for several years at home reading by himself the ancient and modern philosophers and men of letters.

When he reached the age of twenty-three, Hume deliberately worked out the plan of his future life. By the practice of extreme frugality, even for a Scot, he calculated that he could maintain himself and concentrate most of his efforts upon writing. In order to carry out this purpose he went to France, where he continued his studies for two or three years, chiefly at the school of La Flèche, where Descartes had been educated, and there he completed his greatest philosophical book, the *Treatise of Human Nature*, before he had reached the age of twenty-five. When this was published, it received reviews that were favorable on the whole, considering that it was the work of an unknown author. Not unnaturally, however, the reviewers did not realize the truth, that it was the most important philosophical work of that generation. The ambitious young author was bitterly disappointed that the book did not make him famous at once.

In after years he improved his literary style and rewrote his philosophy in popular essays and in semi-popular books, of which the most important are the *Enquiry Concerning Human Understanding* and the *Enquiry Concerning the Principles of Morals*. In these he left out many of the more difficult (although important) points of the *Treatise* and substituted sensational attacks upon miracles and other religious doctrines. He received his reward. He became a very famous philosopher and even more renowned historian; for his *His-*

tory of England remained the standard authority on the subject for a century. Although sternly opposed by the conservatives in religion on account of his skeptical tendencies, no one could question his personal integrity, and few could personally dislike a man who was genial and invariably showed a kind heart. He won friends among the more liberal scholars, and exercised a helpful influence upon younger men, among whom were Adam Smith, the founder of the science of economics, and Edward Gibbon, the historian. Today his youthful *Treatise*, notwithstanding its literary defects, endures as one of the philosophical classics of all time. Those of his later works which are still often read—chiefly the two *Enquiries*, a few of the *Essays*, and the posthumous *Dialogues Concerning Natural Religion*—are consulted chiefly because they present some of the thoughts of the *Treatise* in a less difficult style.¹

II. IMPRESSIONS AND IDEAS

Hume in the *Treatise* follows the example of Locke, and begins his study of the human understanding with a careful inventory of the various contents of our minds. He is a more thorough going empiricist than either Locke or Berkeley, and insists more rigorously that all our knowledge is restricted to the data of sensation and reflection. His classification of these data he believed to be an improvement upon that of Locke.

Hume's classification may be tabulated as follows:

Perceptions	{	Impressions	{ simple	{ sensation reflection
			{ complex	{ sensation reflection
	{	Ideas	{ simple	{ sensation reflection
			{ complex	{ sensation reflection

Hume's most general term for any content of the mind whatever is a *perception*. This use of the word is peculiar to Hume, and replaces "idea" which Locke used in this broad sense. Perceptions, Hume divides into *impressions* and *ideas*. An impression, for Hume, designates any sensation, passion, or emotion as it makes its *first appearance* in our minds. An idea, for Hume, is a *faint copy of an impression*, and a *simple* idea differs from a simple impression only in appearing later and in being more faint, in the case of ideas of memory, and fainter still in those of imagination. Look at a color or hear a sound, and your perception is a simple impression; recall either of these afterwards and your perception will be an idea exactly similar to the original impression except that it will have less vividness; imagine a similar color or sound, and your idea will have still less vivacity. The terms "simple" and "complex," "sensation" and "reflection," Hume uses in the same manner as Locke and Berkeley. In this chapter we shall adopt Hume's terminology.

It will be observed that a complex idea of either sensation or reflection need not be a complex impression. Hume has seen Paris, that he received a more or less correct impression of it, though he had complex impressions of gold and rubies, and he has a complex idea of the New Jerusalem, though its streets are paved with gold and whose gates are of precious stones, which he has never perceived. In other words, he has never had a complex impression of it. Through efforts of imagination and memory we may form complex ideas that in reality are not copies of complex impressions. But in the formation of a complex idea, the various constituent details are all copies of simple ideas that we have previously perceived at some time or other. The only exception that he admits is that a person who had never perceived a certain shade of color, say blue, but who saw before him all the other shades of blue arranged in a scale, could by effort of imagination form a simple idea of the intervening shade. This odd exception, however, is not of

enough consequence to vitiate the general principle that *no* *idea* can form a simple idea for which he has not previously had the corresponding impression, nor a complex idea for which he has not previously had simple impressions corresponding to its constituent details. No man who has always been blind can form an idea of such a color as scarlet, and if he says that "scarlet is like the sound of a trumpet," while in a sense we might be willing to concede a certain similarity, the fact remains that the simple idea of scarlet is not that of the sound of a trumpet. Under unusual circumstances an idea may become so vivid that it is mistaken for an impression. The essential distinction between impressions and ideas is that the former appear first in consciousness, and that the latter are copies of them. All knowledge is derived from impressions; the way to determine the *truth* of any simple or complex idea is to trace its *origin* to the *impression or impressions from which it has come*.

ASSOCIATIONS

The ideas of *memory* and *imagination* differ from one another in that the ideas of *memory* are ordinarily more vivid, and are more like the original impression in order and form as the ideas of *imagination* are more faint, and often more different in order and form from the impressions from which they are derived. All simple ideas may be separated by *association* and united again in other forms; this is done by the *association of ideas*. The association of ideas always takes place in accordance with one of three principles: *resemblance* between the ideas associated (known in later psychology as association by similarity), *contiguity* of the ideas in time and place (association by contiguity), and the relation of *cause and effect*. (When I think of a man, I may next think of another man who resembles him in appearance, or of a man whom I met at the same time and place with him, or of his father to whom he owes his origin.)

The relation of causation is the most extensive of the three, and upon it scientific knowledge is based. When two objects, like fire and heat, are thought to be in this relation, the one denominated the cause is supposed to produce some motion or other action upon the effect, or to have the power of doing so. These three relations of *resemblance*, *contiguity*, and *causation* are *natural* relations by which the mind proceeds in the association of ideas.

The mind, however, can of its own initiative deliberately compare its ideas in four additional ways, and find, or imagine that it finds, relations between them. So there are altogether seven types of philosophical relations: *resemblance*, when a similarity is found between two ideas; *identity*, when ideas received at one time are identified with those received at another as qualities of an enduring object; *space and time*, which afford an infinite number of comparisons such as "distant," "contiguous," "above," "below," "before," and "after"; *quantity and number*, which give rise to mathematics; *degrees in quality*, as in weights, shades of a color, etc.; *contrariety*, as when an idea is supposed to exist or not to exist; and *cause and effect*. Justification for all of these philosophical relations can be found in observation of the direct impressions of sensation, with the exception of those of *identity* and *cause and effect*, which Hume, as we shall see, finds more problematical.

IV. REJECTION OF ALL SUBSTANCES

Hume endorses Berkeley's *rejection of all abstract ideas, including those of material substance*. If substance were a genuine idea, it would have to be derived either from the impressions of sensation or reflection. If it came from those of sensation, it would have to be from some specific sense; if perceived by the eyes it would be a color, if by the ears a sound, if by the palate a taste, and so of the other senses. It obviously is none of these. The impressions of reflection

resolve themselves into our passions and emotions, none of which could possibly represent a substance. The idea of a substance does not differ from that of a mode so far as direct evidence from our impressions goes; both are collections of simple ideas constantly found combined, and to which we have assigned names in order to recall them at our convenience. There is no warrant for referring the simple ideas combined in a so-called substance, as Locke did, to some underlying substratum which no one ever perceived, and of which we have no impression whatever, whether of sensation or reflection. So for Hume, as for Berkeley, we have no evidence for the existence of matter.

Hume does not recognize the validity of what Berkeley called "notions." All knowledge for Hume consists of "perceptions," of what Berkeley called "ideas." Accordingly *Hume rejects Berkeley's claim that we have a "notion" of a spiritual substance or self*, something of which, as Hume is able to show, we have no direct impression. Some philosophers, Hume remarks (probably alluding to Locke and Berkeley), imagine that we are every moment conscious of what we call our self, which remains constant and simple throughout our lives. But from what impression could such an idea be derived? What impression remains invariably the same throughout our lives? He says: "For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I can never catch *myself* at any time without a perception, and never can observe anything but the perception." It follows that our selves are, so far as we can observe our experience, "nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. Our eyes cannot turn in their sockets without varying our perceptions. Our thought is still more variable than our sight; and all our other senses and faculties contribute to this change; nor is

there any single power of the soul, which remains unalterably the same, perhaps for one moment. The mind is a kind of theatre, where several perceptions successively make their appearance; pass, re-pass, glide away, and mingle in an infinite variety of postures and situations. . . . The comparison of the theatre must not mislead us. They are the successive perceptions only, that constitute the mind; nor have we the most distant notion of the place, where these scenes are represented, or of the materials, of which it is composed.”²

In the last sentence quoted, does Hume mean to assert dogmatically that the mind consists of nothing but fleeting perceptions? Or does he concede that there is a place and there are materials of which the mind is composed, although we can form no idea what they are? If we accept the former alternative, Hume is in agreement with the mentalists: the world consists of nothing but perceptions; indeed, he goes further than the mentalists, since he denies the existence of any self or spirit that receives the impressions and ideas. If we accept the latter alternative, Hume is more in line with Kant, who believed that back of our mental states is some kind of ego that exists, although it is inaccessible to our understanding and cannot be thought of as a substance. According to either alternative Hume is consistent with his skeptical empiricism both in affirming that human knowledge, either of the self or of the outer world, provided either exists at all, cannot go beyond perceptions, and also in denying the existence of all substances, spiritual as well as material.

V. CAUSATION

Locke, as we saw, believed that the existence of our selves and God and the truths of mathematics and morality can be proved with absolute certainty by the methods of intuition and demonstration. For Hume, only the principles of mathematics can be established in this manner. In mathematics, clearness and distinctness is the test of truth, since

the contrary of any true proposition would be a logical contradiction, confused and unintelligible; as if one were to say that the cube root of 64 is equal to the half of 10.

But in all *matters of fact*, such as particular facts in subjects like history, chronology, geography and astronomy, and *general* facts in politics, ethics, physics, and chemistry, the contrary of any proposition does not involve a logical contradiction. There would be no logical contradiction in asserting that the fall of a pebble can extinguish the sun, or the wish of a man control the planets in their orbits. For all *matters of fact* we can gain knowledge of principles only through the *observation of causes and effects*.³

There can be no question that Hume believed in the importance of empirical observations in which reasoning is based on causal relationships. At the same time, Hume's analysis of causation has often been thought to undermine its validity, and this was one of the features of Hume's philosophy which so thoroughly shocked Kant that he worked out a new system of epistemology, one of whose main purposes was to establish the validity of causal analysis.

There are two different sides to Hume's treatment of causation that need to be distinguished, and which it will be convenient for us to designate respectively as Hume's *logical* and *psychological* approaches to the problem.

Hume's *logical approach* is expressed in his somewhat awkward definition of a cause as "an object precedent and contiguous to another, and where all the objects resembling the former are placed in like relations of precedency and contiguity to those objects that resemble the latter." ⁴ A free paraphrase of what Hume means would be somewhat as follows. Suppose that in all the instances that we are able to observe of a certain object or event A, it has been invariably followed by a subsequent object or event B, and that in all cases of B that we have been able to observe, it has without exception been preceded by A. We conclude that A is the cause of B, and that it will always be followed by B on future

occasions. We are practically sure of this sequence, although we cannot demonstrate it in a mathematical fashion. Suppose, on the other hand, that D follows C in a certain percentage of cases, but not in all; we can calculate a ratio of the probability that the sequence will prove true on any future occasion. Hume lays down in what is still an imperfect statement (although an advance beyond Bacon and Locke) the principles of inductive logic which J. S. Mill was to formulate with more precision in the nineteenth century. Hume accepts the principles of causation and the uniformity of nature, and employs them in various ways as we shall see; such as his psychological explanation of our beliefs in personal identity and in the identity of physical objects, in his theory of the will, and in his rejection of the theological beliefs in miracles and a particular providence. Perhaps the most reasonable interpretation of Hume's *logical* approach is, that he regards causation and the uniformity of nature as postulates which cannot be demonstrated, but which are extremely useful, indeed indispensable, to the practical guidance of life and the conduct of all scientific investigation outside of mathematics.

Hume's *psychological approach* to causation is more famous and more original than his logical approach, although it is really of less philosophical worth. He analyzes the philosophical relation of cause and effect into the three elements of *contiguity*, *succession*, and *necessary connection*. Contiguity and succession are relations found immediately among our impressions, and there is no doubt of their genuineness as data of our experience. They, however, are of themselves insufficient to lead us to believe that one event is the cause of another. For us to think this, we have to assume a necessary connection between the two. But this raises a difficulty: necessary connection is not a relation which we immediately perceive among our impressions of sensation. It is something that our minds *add* to the impressions that we receive. We do it in this way. Suppose we repeatedly observe

an event, say a flame, invariably followed by another event, heat. An association of ideas becomes established in our minds between the two events. The idea of the one leads to the idea of the other. The supposed necessary connection between the two is merely a *habit* of our minds, and not a quality or relation in our impressions themselves. The habit or custom is the only reason why we come to think that an unseen *force* or *efficacy* passes from one object to another, as when we imagine that energy passes from one billiard ball to another and sets it in motion. We actually observe nothing of the kind.

VI. THE PSYCHOLOGY OF BELIEF AND THE RELATION OF IDENTITY

Hume explains psychologically our belief in the identity and continuous existence of external objects, as well as in the personal identity of our own selves.

The reason we believe in the objective reality of present impressions in general is that they are more vivid than ideas. We accept our ideas of memory as true reinstatements of impressions experienced in the past, because they are more vivid than the still fainter and less coherent ideas of imagination.

Now *any impression is able to communicate vividness to an idea closely associated with it*. The idea then becomes more vivacious, and it may be believed to be true. When returning home from a journey, the objects which we now see as present impressions make more vivid in memory and imagination our ideas of people and things at home. A picture makes more vivid the remembered features of a friend. Relics of saints visibly seen make more vivid the ideas about the saint which the worshipper has been told, and he is more ready to believe them. (If Hume had been acquainted with the psychology of modern advertising and salesmanship, he might have added that if a possible purchaser can be led to

imagine with sufficient vividness the merits claimed for something offered for sale, he will believe that these imagined benefits are real, and buy the article. If in a person's imagination the profits that he is told he will receive from a speculation are sufficiently vivid and attractive, he is likely to have implicit faith in the soundness of the investment. That is why confidence men are successful.)

Suppose you were now to enter a lecture hall and recognize the same desk and seats that you had seen in the room last week. According to Hume, what occurs in an experience like this is that last week you received a certain group of impressions of sensation—desk, seats, etc.—and that these now persist in your memory as ideas. You are now perceiving a fresh set of impressions—desk, seats, etc.—which are precisely like your memory ideas of last week, except that they are more vivid. The vividness of your present impressions imparts greater vivacity to ideas that are similar to them and located by memory in the same place. So you *feign an identity* between your present impressions and your remembered ideas, and assume that the desk and chair are objects that have had a continuous existence in the room during the interval when you have been absent from it. Instead of saying, as Berkeley did, that what we call the objects of the outer world are in reality ideas that endure in the mind of God when we are not perceiving them, Hume's explanation is that we "feign an identity" between present impressions and remembered ideas, and so come to believe that they are objects with continued existence independent of us. Hume apparently does not deny that some "unknown causes" of our impressions may persist outside of our minds, but we have no way to find out what they are. We never know anything but our own perceptions; we never perceive things as they are in themselves.

In a similar manner, according to Hume, we feign an identity between our perceptions of reflection, and so come to believe in the continuity of our selves, although as a mat-

ter of direct introspection we never find anything in our minds except perceptions that are continually changing.

By this rigorous analysis of what we actually experience in our perceptions, Hume believes that he has succeeded in disclosing that all that we directly know are our perceptions themselves, and that we have no knowledge of the nature or continued existence of objects in the outer world, or of our own personal identity as selves. We have no way whatever to discover the "unknown causes" from which our impressions arise.⁵ His philosophy excludes alike the materialism of Hobbes, the dualism of Descartes and Locke, and the mentalism of Berkeley. All that we know are our perceptions, and what more there may be in reality, whether of the nature of matter or of mind, we have no way to ascertain. Hume is a forerunner of nineteenth century positivists like Comte and J. S. Mill, and agnostics like Spencer and Huxley. Hume called his own view *Skepticism*.

VII. IN WHAT SENSE IS HUME A SKEPTIC?

Hume has a sense of humor, and at times is capable of laughing at his own skepticism. In a remarkably candid passage Hume admits that he believes in his skepticism only when he engages in philosophical reflections. "I dine, I play a game of back-gammon and am merry with my friends; and when after three or four hours' amusement, I would return to these speculations, they appear so cold, and strained, and ridiculous, that I cannot find in my heart to enter into them any farther."⁶

Notwithstanding occasional semi-playful confessions like this, Hume of course wishes to be taken seriously. He is generally credited with having shown that if the psychological approach of Locke and Berkeley to the problem of knowledge be carried out to its extreme consequences, and no other method allowed, it becomes impossible on *rational* grounds to justify belief in the continuous existence of ob-

jects in the outer world, or of our own selves, still less in the validity of the empirical sciences. All that we can know absolutely about matters of fact becomes reduced to fleeting perceptions.

Hume's own way of escape from a skepticism that otherwise would have been completely paralyzing is to fall back upon the natural *instinct* which happily induces us to believe in the reality of the external world and the validity of causal analysis. Though theoretically defensible neither by sense experience nor by reason, such a belief, to which instinct prompts us, is justifiable by its usefulness in the practical conduct of life as well as in scientific investigations.⁷ Hume, in the passages in which he speaks in this way, might be called a *realist* who finds the source of belief in realism in instinct, and its justification in the pragmatic consequences that follow from its acceptance. An attitude somewhat similar has been taken by certain of the more skeptical realists of the twentieth century, as perhaps instanced most clearly in Professor G. S. Santayana's *Skepticism and Animal Faith*, according to which our assurance of scientific knowledge rests on "animal faith"; *i.e.*, much what Hume calls "instinct."

Hume's skepticism is far from complete. He acknowledges the absolute certainty of mathematical knowledge, obtained by the methods of intuition and demonstration. He believes in the practical reliability of scientific investigations into matters of fact, based upon causal analysis and implying the uniformity of nature, although he concedes that our assurance here rests upon instinct and habit; in short, he accepts the natural sciences. He also believes that human conduct proceeds in accordance with laws that are as regular as those observable in the natural sciences. Indeed, he regards his *Treatise of Human Nature*, whose subtitle is "An attempt to introduce the experimental method of reasoning into moral subjects," as an employment of the methods of empirical science in the interpretation of human thought

and conduct. He was one of the first to see the possibility of the development of the social sciences. Some regard him as really the first modern historian. Economics, political science, and sociology all employ principles that originally came from him. So Hume is no skeptic in the social sciences.

Hume's confidence in the uniformity of nature and causal determination is the foundation upon which he attacks belief in miracles and in a particular providence, and the freedom of the will in the sense of indeterminism. A miracle he defines as "a violation of the laws of nature." While according to his philosophy it is impossible to say dogmatically that no event can take place in violation of these laws, he urges that experience shows that we can always depend a great deal more upon the uniformity of natural events than upon the accuracy of human testimony. In every instance in which a miracle is alleged to have occurred in violation of natural laws, it is more probable that the original witnesses were mistaken, or that their reports have not been accurately transmitted to us. A miracle is so improbable as to be incredible. Similar considerations are urged by him against believing in a "particular providence"; *i.e.*, a God who sets aside the laws of nature for the benefit of particular persons. Human volition, Hume believes, occurs in accordance with observable and describable psychological laws. We are responsible for our actions when they occur as the effects of our own impulses and emotions, and not as the result of external coercion. But in such cases our conduct is always caused by our own characters; we could not have acted otherwise than we did, on any occasion, without having been different persons from what we were. Hume thus accepts and gives a *deterministic explanation* of the *freedom of the will* and moral responsibility.

There is no question that Hume believed in the *continuity of the self*. His interpretation of the freedom of the will implies it. His psychological explanation of our belief in the continued existence of objects presupposes a persistent

self that retains its memories of the past, compares them with present impressions, and feigns an identity between the two. There would also have to be an enduring self to form the kind of habits in the association of ideas which furnish for Hume the psychological explanation of our belief in the "necessary connection" which causation involves. Hume's skepticism in regard to the self merely amounts to a denial that we have any evidence that the successive perceptions, which we observe, inhere in any kind of spiritual substance or substratum. It is impossible to understand Hume's use of the self without supposing that he believed that there is some kind of unity, organization, and continuity in our perceptions. Hume has raised a problem whose importance Kant was the first to appreciate: How can a succession of perceptions constitute a personality which knows itself, or at least feigns its own identity, and acts as a constructive agency in acquiring knowledge of what, at least for its own experience, is a causally organized outer world?

Hume's reflections upon the nature of the universe and its relations to God are chiefly to be found in his *Dialogues Concerning Natural Religion*. The speakers advance a variety of thoughtful considerations, and expose the difficulties which any philosophy of religion must attempt to solve. It seems probable that Hume wavered in his own mind between the views of two of the speakers, Cleanthes and Philo, and that he employed the literary device of the dialogue in order to be able to think aloud upon the problems of religion without being obliged to commit himself. The impression most students derive from the book is that Hume believed that the existence of God is assured by reason of the amount of order discoverable in the universe, but that the evidence is insufficient to warrant many conclusions about His nature and attributes. Miracles and a particular providence are excluded. The world appears to bear more likeness to an organism of which God is the pervading spirit than to a machine of which He is the manufacturer, a sug-

gestion anticipatory of much of the thought in the philosophy of religion during the nineteenth century as well as our own time.

What Hume really believed about personal immortality, it is impossible to say. An essay on the subject begins with the statement "By the mere light of reason it seems difficult to prove the immortality of the soul; the arguments for it are commonly derived either from metaphysical topics, or moral, or physical. But in reality it is the gospel, and the gospel alone, that has brought *life and immortality to light*." The essay ends with the sentence, "Nothing could set in a fuller light the infinite obligation which mankind have to Divine revelation, since we find that no other medium could ascertain this great and important truth." The body of the essay is a crushing attack upon the arguments for immortality based on human reasoning. Are the opening and closing sentences just quoted ironical? Or do they state what Hume really felt? Hume was staying in London when word came to him of the death of his mother. A Mr. Boyle, who was lodging in the same house, found him "in the deepest affliction and in a flood of tears." After offering the usual condolences, Boyle said, "My friend, you owe this uncommon grief to having thrown off the principles of religion; for if you had not, you would have been consoled with the firm belief that the good lady, who was not only the best of mothers but the most pious of Christians, was completely happy in the realms of the just." Hume replied, "Though I throw out my speculations to entertain the learned and metaphysical world, yet in other things, I do not think so differently from the rest of the world as you imagine."⁸ This incident occurred when Hume's criticisms of religion in his recently published *Enquiry Concerning Human Understanding* were beginning to make him famous. Did Hume's passion for literary renown lead him to make his attacks on religious beliefs more startling than his own private feelings justified? There is no doubt that he rejected the narrow

orthodoxy of the times, but it is quite possible that he accepted the existence of God and personal immortality, and other beliefs of liberal religion, as matters of revelation and inward conviction. A philosopher who accepted the principles of science merely upon the ground of an unaccountable instinct may have held some religious beliefs in a similar manner, although he hardly could have regarded them as resting on any very certain foundation.

Hume therefore is chiefly a skeptic in the sense that he thinks it impossible for the human understanding to discover the real nature of things as they exist in themselves independent of experience. That is, he is a skeptic in metaphysics, and to a considerable extent, at least, in religion. He is by no means a skeptic in mathematics, the natural sciences, the social sciences, nor, as we shall see, in ethics.

VIII. ETHICS AND SOCIAL PHILOSOPHY

Hume does not believe that there are any absolutely eternal and immutable principles of morality knowable by intuition and demonstration. Ethics differs from mathematics in this respect. However, Hume believes in an *empirical* science of ethics. His treatment of ethics, as might be expected, is closely connected with his psychology.

Among our impressions of reflection are those of *pleasure* and *pain*, which immediately accompany all our other perceptions. Secondary to pleasures and pains, and subsequent to the appearance of ideas, are the *emotions* and *passions*. (Passions for Hume scarcely differ from emotions except in being more intense; he employs the term "passions" where psychologists now would be more likely to speak of emotions or sentiments.) *Direct passions* arise immediately from impressions of pain or pleasure; examples are desire, aversion, grief, joy, hope, fear, despair and security. *Indirect passions* are more complicated, and include the conjunction of various other qualities; such are pride, humility, ambi-

tion, vanity, love, hatred, envy, pity, malice and generosity. Hume's analysis of the passions is often acute, and he made permanent contributions to what we now call the psychology of the emotions.

Human volition is always the resultant of emotions and passions. Nothing can oppose or retard the impulse of one emotion or passion except a contrary impulse. "Reason is, and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them." ⁹ There are only two senses in which any action can be unreasonable: it may be founded on the supposed existence of objects which really do not exist; or it may employ ineffective means for a designed end, because of erroneous judgment of causes and effects. The function of reason in conduct is to guide against such mistakes. The selection of ultimate ends or values is always made by the emotional side of our nature; reason can serve only to indicate ways to achieve them. (Many modern philosophers believe that Hume was essentially correct regarding the roles of impulse and reason in conduct. Every act is the carrying out of an impulse: right acts are the consequences of impulses organized coherently in a harmonious and social self; wrong acts are the contrary. A man of integrity is one whose impulses are permanently united in a character or personality that is in harmony with its self and society; the opposite is the case of a dissolute man.)

At times Hume is a hedonist, and uses good and evil as synonymous with pleasure and pain. He is never, however, an *egoistic* hedonist like Hobbes. It is indeed true that self-love often prompts a man to desire his own pleasure. But suppose he sees another person experiencing intense pleasure or pain; that is, speaking in Hume's psychology, he forms an *idea* of the other person's feelings. This idea keeps increasing in vividness as he continues to watch him, so much so that it develops into an actual *impression* of pleasure or pain which he feels himself; the other person's pleasure or

pain becomes his own and furnishes impulses to his own conduct. This process Hume calls *sympathy*; as a result of it men become interested in the general welfare and seek a common good.

Whatever will bring pleasure in the long run, either to one's self or to others, has *Utility*, according to Hume. Utility pleases us in a particular and peculiar manner, independent of and in addition to any direct experience of its pleasant effects. At times Hume explains the disinterested approval of useful acts by the presence of a *moral sense*, developed by the association of ideas, to which utility appeals. Virtues are good because of their utility; if virtues did not promote the general welfare they would not be good. Some virtues, like parental affection and benevolence, are *natural*, since they develop spontaneously and appeal directly to the moral sense; on the other hand, justice is an *artificial* outcome of conscious human contrivance, although it is no less desirable on that account.

In his employment of the conception of a *moral sense*, Hume continues a tradition in ethics of which the third Earl of Shaftesbury and Francis Hutcheson had been the most famous exponents.¹⁰ Hume's use of *sympathy* prepared the way for Adam Smith. His treatment of *utility* makes him a forerunner of Bentham and the other Utilitarians of the nineteenth century. In developing his thoughts on a moral sense, sympathy, and utility, Hume thus made contributions to three quite different schools of modern ethics.¹¹ It is doubtful whether the three conceptions can be entirely reconciled. At any rate, Hume never organized his thought on ethics into a well-articulated system.

The political state, Hume saw, is the result of a gradual development comparable to the growth of a language; neither is the outcome of a deliberate social agreement. Yet the *fiction* of a social contract has merit in calling attention to the fact that the state, and with it the virtue of justice, the institution of private property, and the recognition of a

moral obligation to keep promises and contracts, have all developed out of human instincts and needs, and that intelligent reflection has assisted their growth. Hume has a sense of the historical development of social institutions rarely found in the other thinkers of the Enlightenment. The facts that human beings are naturally to a large extent selfish, yet capable of limited generosity, and that nature affords scanty provision for human wants, gradually led men to recognize the desirability of the institution of private property, together with the virtues of justice and honesty by which it is supported. The *natural* or impulsive obligation to justice is therefore common interest in the maintenance of property and general rules of conduct; the *moral* obligation derives from sympathy; both are strengthened by private and public education. The moral obligation to political allegiance rests upon utility and the general welfare; not upon the duty to carry out a fictitious social contract. Locke's labor theory of property, Hume rejects. He finds the successive steps in the origin of the institution to have been: *occupation* (each person being recognized to have a moral and legal right to land and goods of which he is already master); *prescription* (by which long possession affords a title); *accession* (by which a person is recognized to be entitled to the fruits of his garden, the offspring of his cattle and the work of his slaves); and *succession* (by which property passes at death to children and others according to the closeness of relationship, which Hume endeavors to explain psychologically by the association of ideas). Transference of property by consent, and the development of commerce came as men saw the advantages that would arise from them.

Hume wrote a treatise on the *Natural History of Religions*, in which he shows remarkable insight into facts that scientific research in comparative religion has since confirmed. Hume saw that religion did not originate as the outcome of philosophical reflection. Men sought to propitiate unseen spirits, which they imagined to exist about them, in

order to secure personal needs. Gradually some of these spirits came to assume more importance in their minds than the rest, and so the greater gods of polytheism arose. At a still later stage, the remaining deities came to be thought of as subordinate to a single deity, and so the Greek Zeus and Hebrew Jehovah became supreme. Thus monotheism emerged.

The significance of David Hume in the history of modern philosophy consists, *first*, in his development of the empirical and psychological method in the *theory of knowledge* (epistemology) to its logical conclusions. These, as we have seen, were a partial skepticism. This skepticism horrified Kant, who in his own opinion and in that of modern idealists effectively refuted it by a new theory of knowledge, which conserved what was of real merit in Hume's empiricism. On the other hand, Hume's empiricism was found more satisfactory by Comte and J. S. Mill, who developed positivism. *Secondly*, much of the lasting glory of Hume lies in the fact that he showed that the empirical method of investigation can be employed in *ethics and the social sciences*; he laid the foundations for much of the constructive work that has been accomplished in these fields since his time.¹²

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CHAPTER XI

OTHER PHILOSOPHERS OF THE ENLIGHTENMENT

Besides the development through Berkeley and Hume, the philosophy of Locke gave rise to many other movements of thought during the Enlightenment. Notice will be taken in this chapter of some of the more important philosophers who were influential in these movements.

I. THE BRITISH MORALISTS

Locke did not himself make an extensive study of ethics by the use of his empirical method. He relied upon God as the sole ultimate basis of morality. In consequence he was not able to extend religious toleration unqualifiedly to skeptics and atheists. The successors of Locke applied empirical methods to ethics, and disclosed foundations of morality in human nature, reason, and experience independent of theological considerations. This was a very great achievement. As a consequence, when in the past two centuries individuals have largely or wholly abandoned religious beliefs, they have usually preserved their acknowledgment of moral obligations. The weakening of religious convictions has not led to the utter ruin and destruction of personal integrity and social responsibility which would have been inevitable if morality had continued to be supposed to owe its authority exclusively to divine commandment. The new views of the foundations of ethics have made it possible and desirable to extend complete religious toleration to all, even atheists and religious skeptics.

The third Earl of Shaftesbury (1671–1713), at whose birth Locke officiated as the physician, and whose early training he supervised, was the first of the great British moralists of the eighteenth century. He carried the spirit of Locke's empiricism into ethics, and enriched his thought with classical Greek conceptions. Man, Shaftesbury urged, has instinctive "self" affections, which impel him to look out for his own interests. He also has "natural" (or as we should now say, social) affections which prompt him to benevolent actions. Man unfortunately also has "unnatural" affections, like envy and malice and their derivatives, which are as hostile to his own true interests as to those of others. He should overcome these unnatural affections, and he will then find that his selfish interests and benevolent impulses are really in agreement; for an individual can himself be happy only if he shares his pleasures with others and seeks a common good. This is all the more the case, because there develops within man a *moral sense*, which finds pleasure in virtuous conduct and disapproves of that which is immoral. For evidence Shaftesbury appeals to human experience. His view is largely aesthetic; the good life resembles a work of art, for it is a development and harmony of all that is excellent in human nature. Shaftesbury thus found a way to present the claims of the moral life without making them dependent upon religion, although he did not attack religion in any manner.¹

Francis Hutcheson (1694–1747), professor of moral philosophy in the University of Glasgow, also views ethics largely from an aesthetic standpoint. A moral life is like good taste in art; an immoral life deserves condemnation as bad taste, it is ugly and sordid. The moral sense is the chief seat of our judgments of right and wrong. In his early *Inquiry Concerning Virtue and Merit*, Hutcheson resembles Shaftesbury in regarding the moral sense chiefly as a seat of aesthetic feeling; in his posthumous *Moral Philosophy*, where he shows the influence of Butler, the moral sense has

become more of a rational faculty, and he seeks in reason for greater stability in moral judgments than mere feelings could afford.²

Joseph Butler (1692–1752), a bishop in the English church, bases morality still more upon an appeal to reason. He admits, to be sure, in a striking passage, that “when we sit down in a cool hour,” unexcited, we cannot justify to ourselves even virtue and moral rectitude without being convinced that they will at least not be contrary to our personal happiness. Even so, if we reason out consequences clearly, we shall see that it is in accordance with our selfish interests to lead a righteous life. This is true in nearly all circumstances regardless of God and the future existence, and holds entirely without exception when they are brought into account. While self-love, if rational, will lead to a righteous and benevolent life, it is not always easy to calculate one’s interests accurately. Conscience, a rational faculty implanted in man by God, enables man to discern good from evil intuitively, and so is a simpler and safer guide. By the time that Butler wrote, it was no longer sufficient for a clergyman to assert the authority of morality upon arbitrary divine commandment; he had to support such claims by an appeal to human reason and experience. Butler is a keen thinker, and his analysis of human nature, with its diverse desires, affections and passions, mostly not hedonistic, and the regulative rational principles of self-love, benevolence, and conscience, continues to influence British moral philosophers of our own and recent times, such as Henry Sidgwick, G. E. Moore, and C. D. Broad.³

The advance of Hume upon the three moral philosophers just mentioned consisted in large part in his finding sources of moral obligation in *sympathy* and *utility*, in addition to the *moral sense* of Shaftesbury and Hutcheson. (See Chapter X, section VIII.)

Adam Smith (1723–1790), an intimate friend of Hume and for some years a professor in the University of Glasgow,

concentrated his attention upon *sympathy*, and further developed its implications in his *Theory of the Moral Sentiments*, published in 1759. He showed that the sympathy which a man would most highly appreciate would be that of a perfectly impartial spectator who fully understood his emotions and approved of them; such a spectator a man has in his own *conscience*. So Smith was able to assimilate Butler's conception of conscience to an empirical system of ethics in which divine origin is not necessarily implied in order to justify its validity. The notion of sympathy in various modified forms has contributed to the development of recent sociology, as one aspect of various interpretations of "imitation," "consciousness of kind," "group consciousness," "like mindedness," and similar conceptions.⁴ Schopenhauer, as we shall see, in a later chapter, adapted sympathy to his moral philosophy of pessimism. In his *Wealth of Nations*, published in 1776, Smith laid the foundations of classical political economy.

Richard Price (1723-1791) to some extent anticipated Kant in refusing to base morality on anything so subjective as psychological processes like the desire for pleasure, instinctive affections, the moral sense, and sympathy; on the contrary, moral laws are "rational," "immutable," and "eternal"; our intellect recognizes them intuitively. The Scottish *Intuitionists* of the "Common Sense" school, whose views on the theory of knowledge will be mentioned later in this chapter, sought in various ways to show that the fundamental principles of morality are self-evident to the common sense of a plain man, or at least become so when his conscience is properly educated.

II. ENGLISH DEISM

The British moralists of the eighteenth century, as we have seen, in different ways established ethics on rational and empirical foundations independent of revealed religion,

without directly attacking the latter, which most of them accepted. The English Deists went further. They rejected orthodox Christianity, for which they offered as a substitute *natural religion*, which alone, as they thought, is based on reason and experience.

Lord Herbert of Cherbury (1583-1648) as early as 1624 had already outlined the essential principles of what in the Enlightenment came to be known as *Deism*:—the existence of God, who should be worshipped, who expects men to repent of their sins, and to live virtuously, and who will reward and punish them in a future life. These principles can be established rationally, without the help of revelation; they constitute *natural religion*, and were held by all men in primitive times.

Locke, by publishing *The Reasonableness of Christianity*, unwittingly opened the way for a revival of "natural religion." For in this book Locke insisted that Christianity in order to be acceptable must be reasonable, since "reason must be our guide in everything." To be sure, Locke thought that the characteristic features of Christianity which mark it off from other religions, like the divinity of Christ, are reasonable, since they are not "contrary to reason" and are established by the evidence of miracles, prophecies, and revelations; but such evidence, while not contrary to reason, he admitted is "above reason," and could not be established by reason alone. John Toland (1670-1722), who to Locke's annoyance professed to be his disciple, in 1697 published *Christianity Not Mystrious*. Anthony Collins' *Discourse of Free Thinking* came in 1713, Matthew Tindal's *Christianity as Old as the Creation* in 1730, and Thomas Chubb's books and tracts from time to time between 1715 and 1748. Without discriminating between the details in which these writers differ among themselves, it will be enough to point out that they unite in rejecting Locke's recognition of anything as knowable which is "above reason"; all that can be retained from Christianity is restricted to what is directly evidenced

by reason and experience as understood by British empiricism. This residuum consists of the principles of "natural religion" already mentioned. These principles are as "old as the creation"; they alone can be accepted by "free thinkers," that is, by men whose thought has become freed from authority, tradition, and fancied revelations, and is guided exclusively by reason and experience.

Pope's *Essay on Man* may in some respects be regarded as a literary formulation of English Deism, although it contains elements, derived indirectly from Leibniz and other sources, that are not Deistic.⁵ Berkeley intended his philosophy to be a refutation of Deism, as well as of other views unfavorable to orthodox Christianity. By those of the orthodox who were not converted to Berkeley's mentalism, Joseph Butler's *Analogy* was usually regarded as a sufficient refutation of Deism; this professes to be a strictly philosophical investigation, and to show by rational and empirical arguments that the tenets of orthodox religion are at least so strongly probable that they ought to be generally accepted; the book long remained a favorite text, and W. E. Gladstone edited a new edition as late as 1895.

Hume is now generally said to have furnished the most effective refutation of Deism. In his *Natural History of Religions* he shows that primitive religions in actuality were crude and polytheistic, and not at all the "natural religion" of Deism. In his *Dialogues* Hume makes it evident that it is difficult by the methods of empiricism on which the Deists relied to establish even the tenets which the Deists affirmed. After Hume, those who rejected traditional Christianity were more likely to be religious skeptics like Hume himself, or else to be Unitarians or pantheistic idealists, than to be Deists. The orthodox favored Butler, Berkeley, or the Scottish School (to be discussed later). The only lasting service of Deism as such was to force serious philosophical inquiry upon the problems of religion, and lead greater men than the Deists themselves to study religion scientifically.⁶

III. MATERIALISTIC PSYCHOLOGY

In a passing remark in the *Essay on Human Understanding*, Locke observed that it is possible that all matter has the power of thinking.⁷ This chance suggestion gave momentum to a movement which Locke had no thought of encouraging. Toland advanced a crude view of mind as a function of brain activity, which he believed to be compatible with his natural religion, and gave the latter the name of *pantheism* (a word which he coined, and which is now used to include the stand-points of Spinoza, Hegel, and many other philosophers whose views have little in common with his).

David Hartley (1705-1757), a physician and student of chemistry, holds an important place in the history of associational psychology. He thought that the formation of complex from simple ideas must be analogous to the composition of hydrogen and oxygen in water, and of the various ingredients in medicines. He had grasped a significant truth: In mental processes the whole is more than the sum of its parts; a complex idea does have unique qualities not found in simple ideas taken separately. As a man of science, he sought a physiological basis for this mental transformation, and concluded that simple ideas are the result of vibrations in the brain, and that complex ideas arise from the coalescence of such vibrations. This is not downright materialism, of course. Hartley did not identify thought with vibrations in the brain; but he is materialistic in tendency to the extent that he makes thought dependent upon brain processes. He sought to reconcile these views with religion, in which he was a sincere believer.

Joseph Priestley (1733-1804) further developed Hartley's thought in *Hartley's Theory of the Human Mind*, and gave it a more directly materialistic slant, and in *Disquisitions Relating to Matter and Spirit*, he urged that mental and physical processes may be different manifestations of the same substance. Priestley, who was a Unitarian, sought to

show that his views of the mind and brain were favorable and even conducive to belief in God and human immortality. Since the soul is material, and its parts are separated but not destroyed at death, they can be put together again by divine power.⁸

IV. THE ATTITUDE OF THE BRITISH ENLIGHTENMENT TO RELIGION

The prevailing tendencies in British thought during the period were hostile neither to state nor church. Englishmen in general were content with the political and religious liberties that they had enjoyed ever since the Revolution of 1688. The moralists indeed made ethics independent of theology, and the psychologists sought to correlate the association of ideas with brain processes. But neither attacked religion. The Deists did not wish to overthrow religion altogether, but merely to make it more rational, and free it from what they believed to be superstitions; even so, they were not regarded with much favor. There was an almost universal feeling that while the more enlightened might as individuals reject this or that Christian doctrine, they ought not to disturb the simple faith of the average man, for whom religion was a personal solace and a sanction to righteous conduct. Even a skeptic like Hume did not openly reject Christianity in his writings; he merely wrote that many of its tenets could not be established on philosophical grounds, but should be accepted as matters of faith or revelation.

During the first half of the eighteenth century, British public opinion deprecated undue religious "enthusiasm," and favored a calm, unemotional acceptance of religion. Locke had denounced enthusiasm because in the seventeenth century it had given rise to bitter quarrels between the sects, each of which had tried to impose its creed upon the country, and the more extreme of whom had been led by fancied

personal revelations into all kinds of extravagant if not downright immoral conduct. The only way to make religious peace and toleration secure seemed to be for no one to become unduly excited over religious matters.

This policy had the good effect of securing general good will and calmness in religion, and it delivered the nation from the evils of bigotry and intolerance. It had the bad effect of introducing wide religious and moral apathy, and many of the dignitaries of the church were more interested in a comfortable life for themselves than the welfare of their flocks. The poor were neglected, their economic condition became deplorable, and they were often addicted to drunkenness and vice of every kind.

Toward the middle of the century, a young group of Oxford students and graduates, led by John and Charles Wesley, started the great "evangelical revival," which swept the country, as well as the American colonies. Religion again became an intense personal experience. Many were converted, forsook their vices, and led godly lives. While nothing was done to relieve the harshness of the economic system, those of the poor who as a result of religious conversion became sober and industrious were in many cases able to improve their personal condition considerably. Since the evangelical movement put little emphasis on the doctrines which had led to the bitter disputes in the preceding century, men learned to become deeply religious as a matter of internal feeling, and yet remain tolerant and peaceable in their attitude toward those of different theological beliefs. From this time on, philosophy itself came to recognize the importance of the feelings in the life of men, and the prominence given to sympathy and emotions generally in the ethics of Hume and Adam Smith is an illustration of the changed attitude.

V. THE FRENCH ENLIGHTENMENT

During the long reign of Louis XIV, which ended in 1715, France led the world in almost every aspect of culture except technical philosophy, in which Frenchmen were not much interested. Few of them felt that they had anything to learn from English thought. The attitude of French intellectuals in this respect changed completely after François Marie Arouet (1694–1778), usually known by his pen name of Voltaire, published his *Lettres philosophiques sur les Anglais* subsequent to a sojourn in England from 1726 to 1729, where he had taken refuge to avoid imprisonment without trial because he had given personal offense to a member of the French aristocracy. Voltaire quickly became an enthusiastic admirer of the institutions of a country where state and church did not hamper a gentleman in his conduct and the expression of his opinions. He caught at least the spirit of the empiricism of Locke, the Deism of Toland, and the physics of Newton. He devoted the rest of his long life to the dissemination of these aspects of the Enlightenment, as he understood them, among the intellectuals in France and in the other countries of Europe in which French was the literary medium of people of intelligence and refinement. He was a friend of Frederick the Great of Prussia, whom he visited; he corresponded with Catherine the Great of Russia; he exercised considerable influence upon other rulers of Europe and the intellectual circles which surrounded them.

Voltaire had little originality, and not much space is devoted to him in most of the histories of modern philosophy. However, he did not simply import and circulate English ideas. He combined them with thought derived from Bayle and other earlier French philosophers, expressed them in his own inimitable style, and brought them to general attention in dramas, novels, poems, essays, pamphlets, historical studies, and a philosophical dictionary,—all of which

are distinguished by clarity, eloquence, wit, and satire, as well as logical argument.

Being one of the most brilliant literary writers and propagandists that the world has ever known, his works were all the more widely read because the publication of many of them was forbidden by law. He transformed the intellectual outlook of thinking Frenchmen. He sowed in the national consciousness the love of liberty, detestation of bigotry, superstition, and persecution, and toleration of all shades of opinion in science, philosophy, politics, and religion that have remained persistent traits of the French character since his time.

In religion Voltaire was a Deist; there is sufficient order in nature to lead us, like Newton, to believe in God. After a time, Voltaire came to believe that matter has existed eternally as well as God; the power of God is limited: this explains natural evils like the earthquake at Lisbon, and leads him to ridicule Leibniz' claim that this is the best of possible worlds; although his own view, that the world is as little bad as God can prevent, is not wholly different. He detests the Catholic church in France in his own time on account of its superstitions and persecutions; he wishes to replace it in the minds of thinking men with the natural religion of Deism without disturbing the religion of the common people.

In politics Voltaire desired for France the liberties that Englishmen of the middle classes then enjoyed. Apparently he did not think that the British form of government should be directly imitated, but rather hoped that an enlightened monarchy would rule the country efficiently and benevolently. The "enlightened despots" of the eighteenth century in other countries were influenced by Voltaire's ideas. Men like Turgot, Condorcet, Mirabeau, and La Fayette endeavored to bring about political conditions in France similar to what Voltaire favored, and we can imagine that he would have approved in general of the third republic. The bru-

talities of Robespierre and his associates, the despotism of Napoleon, and the reactionism of Charles X were passing phases in French history in which the spirit of Voltaire was temporarily forgotten. On the other hand, Voltaire had little interest in the peasants; the recognition of the rights of the common man owe less to him than to Rousseau.⁹

The temper of the Enlightenment in France was more radical and destructive than in England because of the inflexibility of the old regime. Most of the rulers in church and state were narrow, arbitrary, corrupt, and incompetent. They found no way to remedy the injustices from which the middle classes suffered, much less to relieve the chronic poverty of the masses of the people, who were far more wretched than in England. Neither church nor state could reform itself, and neither was willing to profit by the criticisms of the philosophers. The latter enjoyed no civil liberties. They ran the risk of indefinite imprisonment without trial whenever they published opinions on political, scientific, economic, or religious subjects that might give offense to those in power. If the philosophers had been allowed freedom of speech and publication; or even more, if they could have had some share in the responsibilities of administration, they would have gained practical experience and become less visionary and more constructive. As things were, they were embittered, and under the leadership of Voltaire they succeeded in making the pretensions of church and state ridiculous, bringing both into general contempt. The government completely lost the confidence of the nation, and when economic conditions grew desperate, the Revolution of 1789 became inevitable. To be sure, no philosopher intended to sow the seeds of a political revolution that would culminate in a reign of terror followed by the career of Napoleon. They wished only to open the road to intellectual, political, and religious liberty, spread the principles of the Enlightenment, and free the land from prejudices, persecutions, superstitions, and corruption.

Denis Diderot (1713–1784) devoted the best efforts of his life to the preparation of an Encyclopaedia, and many of the best minds collaborated with him. The purpose was, in the spirit of Bacon, to further the advancement of the sciences, make more generally known the results already reached, show the relationship of the sciences to one another, and lead thinking men in general to a progressive and experimental attitude. The Encyclopaedia was full of weaknesses and inconsistencies, and it contains no new philosophical contributions of much consequence. Yet it performed a service in spreading information and infusing a new spirit. "Hatred of falsehood, superstition, oppression, confidence in the progress of reason and science, belief in the power of education and law to overcome ignorance, error and misery, which are the source of all our misfortunes, and lastly warm sympathy for all that is human were shed abroad from this focus to the ends of the civilized world." ¹⁰

Some of the philosophers were more radical than others. The abbé Etienne Bonnet de Condillac (1715–1780), who remained in good standing with the church, and whose psychology was long taught in the public schools of France, was not thinking of overthrowing the institutions of his country by his *Traité de sensations* in which he carried out an extreme development of the empirical psychology of Locke. The mind in its reception of sensations is entirely passive. If the first sensation received were the scent of a rose, the soul at that moment would be the scent of a rose and nothing else. If two sensations are experienced at the same time, comparison and judgment arise between them. Instead of assuming with Locke a considerable number of innate faculties, Condillac regards all the higher thought processes as merely transformations of sensations in the course of further experience. Extension and the supposed knowledge of the outer world based upon it arise from the sensation of touch,—an adaptation of Berkeley's theory of vision. Condillac believes, apparently, in the existence of the soul apart from

the body, but we know nothing of its substance, only its sensations.

Helvétius (1715–1771), a successful financier and warm-hearted philanthropist, developed Condillac's sensationalism in a manner that gave offense to both church and state. For a time he was forced to leave the country, and like other French philosophers under similar circumstances he was warmly welcomed by Frederick the Great. The minds of men originally are blank tablets; all their desires develop from their experiences of pleasure and pain. In theory Helvétius is an egoistic hedonist. Since all men are equally gifted originally, it depends entirely on circumstances how their characters and capacities finally develop. Hence, education is of supreme importance. Men cannot attain noble characters in unfavorable surroundings. They become vicious because of bad social conditions maintained by church and state. He wishes to substitute Deism and natural ethics for the theological morality of the church. His psychology of the way that personal character develops from the primitive feelings of pleasure and pain is not clearly worked out, and he did not formulate a constructive plan by which new political and religious institutions should educate men properly. Like other leaders of the French Enlightenment, he is indignant at the evils of the existing order and helps to bring it into discredit, without succeeding in outlining a practical substitute.

Julian Offrai de La Mettrie (1709–1751), originally a military physician, went further in a materialistic direction. Descartes had thought of all animals as machines; for La Mettrie man is no exception, hence the title of his most famous work, *L'homme machine*. He rightly saw that there are common physiological principles operative in vegetable, animal, and human organisms, and that differences in function and structure vary with diverse wants. He even seems vaguely to have anticipated the conception of organic evolution. On the whole, however, his materialism is rather crude. Sensa-

tion and all other mental processes are modifications of matter; and, since an enormous number of thoughts find their places in the brain, it must be that each thought is extremely small. The ethical side of his materialism made an unfavorable impression. Although he insisted that a person in his conduct should respect the good of the community, his ethics consists chiefly in detailed and somewhat disgusting descriptions of forms of sensuous enjoyment (*volupté*) which do not harm others, but hardly deserve the attention which he gave them. His reputation was such that Voltaire and others believed that his sudden death was due to over-eating.

Diedrich von Holbach (1723-1789), a German baron who lived in France, was a materialist with higher ideals. In his *Système de la nature*, published in 1770, he set forth an elaborate theoretical statement and defense of materialism, in which he saw a new gospel for the intellectual and moral enlightenment of mankind. Man is a material being; his mental processes are nothing but motions in his brain. All human actions are just as completely mechanically determined as other natural events. The soul is only the body viewed in relation to some of its functions. The notion of spirits originally arose among savages to explain effects whose natural causes they were unable to observe; the retention of spiritual explanations of events stands in the way of real scientific investigation of their true causes, and retards the social progress that scientific advance would make possible. He vigorously attacks the philosophical arguments for the existence of God and the immortality of the soul. He believes these to be superstitions which rulers and priests have imposed upon the credulity of the people in order to be able to exploit them more easily. He rejects the natural religion of the Deists as well as the revealed religion of orthodox Christianity. On the other hand, he retains the Deistic belief in an original natural ethic which governed men's conduct before they were corrupted by civilization.

If it were not for religious superstitions men would follow this natural ethic and be just and benevolent. He denounces the injustice and corruption of the state as well as the church with the utmost frankness, and he believes that if both could be overthrown, men would again be good and just.

Holbach's book was widely read and created a great sensation. Voltaire replied to it in defense of the Deistic conception of God. Rousseau and Goethe were repelled by what seemed to them the coldness of a purely materialistic philosophy which found no room for religion at all. The extreme radicals probably welcomed it. The belief of some of the extremists twenty years later in the French Revolution that, once the political and religious authorities were overthrown, the natural righteousness and justice of mankind would spontaneously assert themselves, was in accordance with the thought of Holbach. The readers of Holbach today observe the same intellectual difficulties in his theoretical materialism as in that of Hobbes. Holbach, however, is an example of a materialist who favors high ethical principles, and is inspired by an honest desire for the betterment of mankind.¹¹

VI. ROUSSEAU

Jean Jacques Rousseau (1712-1778), a native of Geneva with French Protestant ancestors, led an adventurous but unrestrained and unhappy life spent mostly in France. During his last years he suffered from persecution complexes and must have been at times partially insane. He was a man with abnormally intense feelings and emotions, vivid imagination, and warm sympathies. He lacked self-control. His actual conduct fell far short of the lofty ideals which he proclaimed to the world, and in which he sincerely believed. One redeeming feature about the man is the honesty with which in his *Confessions* he acknowledges his weaknesses and shortcomings and even exaggerates them.

As a philosopher, many of Rousseau's ideas, stated ab-

stractly, do not differ greatly from those of other writers of the Enlightenment. His general spirit and attitude, however, is so different that he occupies a place by himself, and he is often classified as a forerunner of the Romantic movement of the early nineteenth century rather than as a man of the Enlightenment. Of comparatively humble origin, usually living in poverty, he shared the hardships of the common people, understood their lot, and did more than any other writer of his age to arouse general sympathy for them. He did much to change the temper of European thought in social philosophy and literature, and to awaken love for the beauties of physical nature, and appreciation of the importance of the emotions and sentiments in human life. He was not a metaphysician or logician. His assertions were often extravagant and inconsistent, and he was unable to organize his thoughts into a coherent system. The admirers of Rousseau praise him as the greatest seer of his age, while his detractors hold him responsible in a considerable measure for the turbulence of the French Revolution, in which human impulses and passions broke away from the guidance of Cartesian clarity of thought and eventuated in general chaos and confusion.

Almost all philosophers since Bacon had prided themselves upon the triumph of reason over emotions, and had looked to the unhampered progress of the arts and sciences for the liberation and advancement of man. Rousseau, on the contrary, regarded the evils of the times as the fruits of an artificial civilization, and in his early essays (*Discours sur les sciences et les arts*, 1750, and *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*, 1753) he praised the life of primitive man, as he romantically imagined it to have been, when all were equal, and before the institution of private property had degraded most men into a condition of poverty and servitude, and debauched others by an artificial life of luxury and idleness. There was much in the social conditions in France to make Rousseau's

views plausible, and these essays made a profound impression. Rousseau at this time was confident that man is by nature good; his natural impulse to preserve himself and his sympathy for others would assure him a well ordered life if it were not for the evils of civilization. Rousseau, however, even in these early works, does not deny that civilization has brought some benefits, but he finds no rational way to conserve the values and eliminate the evils in associated life. He desires the improvement of society but does not know how to bring it about. The net result of these works was to stir up discontent with the social order, and arouse a vague desire for a return to "the life of nature."

In the *Social Contract*, 1762, Rousseau is more constructive. It is possible for a critical reader today to eliminate from this book the vagaries and impracticalities, and to extract a valuable philosophy for a democratic state. It deserves to rank with Plato's *Republic* and Aristotle's *Politics* as one of the great classics in political philosophy. It exercised considerable influence in the development of republican ideals in France and the United States, as well as elsewhere. His account is largely based upon the Swiss cantons, which he knew, and the ancient city states, of which he had read. He believes in direct government by the citizens, who should themselves in public meetings and elections make the laws, without being betrayed by elected representatives. This is of course impractical for the national affairs of a large state, although local matters can be handled this way in country communities. Rousseau at least has the merit of recognizing the civil and political rights of every citizen, and of giving him a voice in the government. In this he marks an advance upon Voltaire and the other intellectuals who thought only of the middle classes and the aristocracy, and were unconcerned with the rights and welfare of the masses. Rousseau in this work realizes that true freedom cannot be gained by a return to anything like the primitive simplicity of savage life, but that it is rather to be found in a state in which the

natural rights of all men to life, liberty, and property will be conserved by laws which the people impose upon themselves. Such laws should be the expression of the *general will* (*volonté générale*) in which each citizen as an individual wills the common good, and not in irrational compromises between the interests of conflicting factions which at best could only express a "will of all" (*volonté de tous*) which is unconcerned with the lasting welfare of the community as a whole. Under ideal conditions, the true general will should reveal itself in a popular vote, whose outcome those in the minority will accept as what they really desire. Any one who violates the laws, since he has previously accepted citizenship and participated in making them, has by an implicit (although not literally historic) social contract consented to his own punishment.

The principles on which a democratic government is based can therefore be found in Rousseau's *Social Contract*; the great problem is to make sure that the result of an election will effect the triumph of the general will, and not the victory of a group of factions. The designers of the American constitution of 1787 believed that the common will is most likely to be realized if the people elect different officials to perform legislative, executive, and judicial functions, and in part serve for terms of different lengths. The abiding will of the people is thus conserved, and chaotic changes in government cannot be brought about as the result of transient popular gusts of passion manifested in a single election. The fathers of the American republic were thus able to embody the real merits of Rousseau's philosophy in their institutions shortly after Rousseau had set forth his views. The French were less immediately successful in doing so. The leaders of the various conventions and assemblies in the French Revolution had had no previous political experience, and did not know how to make Rousseau's ideas workable. Generations were to pass before the French people succeeded at last in developing institutions through which their gen-

eral will could find adequate expression. The overthrow of a corrupt and autocratic government cannot lead to free institutions until a nation has passed through a long period of education, probably under a succession of imperfect constitutional monarchies and republics, and possibly dictatorships.

Like Helvétius, Rousseau saw that the primary problem of his time was one of general education. In *Émile*, 1762, which many regard as Rousseau's greatest book, he imitates Locke in outlining a course of education for a single pupil of the better classes under the guidance of a tutor. In this book he makes important contributions to educational theory, which the modern reader can discriminate from much that is impracticable. Rousseau knows that a child should be led to realize the natural consequences of his own conduct, and so learn to govern himself accordingly. Education should be as unartificial as possible. A child should not be treated as an immature adult; he passes through different stages in infancy, childhood, and adolescence, in each of which his personality should be respected. Rousseau incited parents to love and understand their children. He emphasized more than Locke the fact that the mind of a child is not a mere piece of putty to be molded by a tutor, but that native instincts and capacities should be allowed to unfold in a wholesome and natural way. Less experienced than Locke in actual knowledge of children, and hence visionary and impractical in some of his concrete suggestions, he nevertheless advanced beyond Locke in many points, and marks an important step in the development of modern educational theory.

While Rousseau himself did not know how to outline a plan of education in schools for the children of the common people, John Bernard Basedow (1723-1790) and others, under the inspiration of the *Émile*, almost at once undertook the problem, and they were followed in the next generation by Heinrich Pestalozzi (1746-1827), Johann Friedrich Her-

bart (1776–1841) and Friedrich Wilhelm August Froebel (1782–1852). These great educational reformers were indebted to Rousseau for many of their ideas, and they profited by the public interest in education which he had aroused.

Rousseau's views on religion, stated abstractly, resemble those of Voltaire and other French Deists. His arguments for the existence of God remind one of the Deists, as well as of Descartes, Leibniz, and Locke. They may be freely paraphrased as follows: "I cannot doubt that I exist. I know that others exist because my ideas of them come without my consent. I am aware of myself as an active and intelligent being with a free will. Any motion must be the effect of a cause. Matter could not cause itself to move, and there must be a will to give motion to the universe and animate all matter, namely God. Hence the existence of God, with intelligence, power, and will. But I cannot discover the essence of God, and shall argue no further about Him than I am obliged to do in the relation that he appears to myself. God maintains the universe in accordance with natural laws, and does not perform miracles in violation of these laws. God is not responsible for evil, which is due to man's free choice. It would be absurd to hold God to blame for the sufferings of the people in the earthquake at Lisbon; God did not make towns with badly built houses, nor did He cause people to forsake the security of the country and herd themselves in the unwholesome conditions of city life." Rousseau believes that the power of God is limited, and uses this as a further argument to acquit Him of responsibility for evil.

In such reasoning there is little that is original in Rousseau. Where he chiefly differs from the other French Deists is that he bases religious conviction on personal feeling and experience. Rousseau's attitude is to a certain extent a French parallel to the Evangelical movement in England. The Savoyard vicar in *Emile* knows and loves God as a result of his own feelings and inner experience. The vicar

is a servant of Jesus Christ whom he also knows and loves. Although he cares nothing for the doctrines of the Catholic church, he says mass, hears the confessions of his flock, and seeks to help them in every spiritual and material way that he can. Rousseau is not concerned with the doctrinal differences between Catholicism and Protestantism, to each of which he was at times an adherent. A man in either one can find the way to a better life. Rousseau was almost the only man of the French Enlightenment who had any adequate appreciation of genuine religious feeling and its worth for human life, and that it is more important to conserve this value than to attempt ruthlessly to destroy the churches on account of their faults. Neither French Catholics nor Swiss Protestants were broad enough to appreciate Rousseau's tolerance. They burned his books, exposed his personal moral derelictions (which indeed were reprehensible), and lost sight of his meritorious sentiments.

In *La nouvelle Héloïse* (1761), a romantic novel, Rousseau taught the eighteenth century to love the beauties of natural scenery, and to find in them a source of inward joy; in so doing he was an important source of inspiration to the Romantic poets of the nineteenth century in England and Germany. In this book, too, he effectively contrasts the inner solace which religious feelings may afford, without necessarily involving further theological beliefs than those held by the Deists, with the cold and gloomy outlook toward the universe implied in the materialistic atheism of Holbach. Here, too, Romantic poets like Byron, Shelley, Wordsworth, and Goethe are indebted to him.¹²

VII. THE ENLIGHTENMENT IN GERMANY

The most prominent technical philosopher in Germany during the Enlightenment was Christian Wolff (1679-1754), who simplified and further elaborated some of Leibniz' principles in treatises written in easy Latin, as well as in German.

He thought himself competent to explain everything on rational principles, as is instanced by the title of his best known work *Vernünftige Gedanken von Gott, der Welt, und der Seele des Menschen, auch allen Dingen überhaupt* (Rational Thoughts about God, The World, the Soul of Man, and all Things in General)! He was dry and superficial. He lacked insight into the profounder thought of Leibniz, and failed to express its real spirit. However, Wolff was the first to write philosophy extensively in the German language, and his books were suitable for instruction in the schools and universities; he did much to make philosophical studies available to German readers.

A religious movement known as Pietism swept through Protestant Germany about the middle of the century, which was in some respects the counterpart of the Wesleyan revival in England and America. Pietism quickened religious feeling, insisted on a stern and simple moral life, and disregarded technical theology. The Protestant churches in Germany, being more elastic than the Catholics of France and the Calvinists of Geneva, were able to assimilate some of the liberal philosophy of Wolff and the emotionalism of the Pietists. So there was less conflict in Germany between the adherents of the new views and the conservatives.

Influenced to some extent by both of the tendencies just mentioned as well as by the empirical developments in England and France, and also by Spinoza, whose importance he was perhaps the first in his century to discover, Gotthold Ephraim Lessing (1729-1781) conceived of a philosophical interpretation of history. He believed in a divine education of the human race, which began among savages, and was further developed in the great religions of the Orient as well as in Christianity. No one positive religion possesses a monopoly of truth: all should be studied and appreciated both aesthetically and intellectually. Johann Gottfried Herder (1744-1803) also wrote upon the philosophy of history. He was interested in early folklore and the songs of primitive

peoples, and believed, like Rousseau, that in simple feeling, poetical insight, and instinctive faith, there are more reliable sources of knowledge than in the rationalistic productions of an artificial civilization.

Growing up in this intellectual environment, a scarcely known philosopher, Immanuel Kant (1724–1804) was quietly studying at the University of Königsberg. He was at first a partial adherent to the rationalism of Leibniz and Wolff. Later he was shaken in his confidence in rationalism by reading Hume, but he found empiricism no more convincing. He sought in vain for an objective standard for morality in the attempts of Shaftesbury, Hutcheson, and Hume to base morality upon feelings. Rousseau stirred him profoundly, and taught him to respect the worth of every man as an end in himself. Shortly after 1770 he began slowly but thoroughly to develop a system of his own, and he inaugurated a new epoch in the history of philosophy when he published his *Critique of Pure Reason* in 1781.¹³

VIII. THE SCOTTISH PHILOSOPHY

A reaction against the kind of empiricism introduced by Locke which had ended in the skepticism of Hume was led by a group of Scotch philosophers, noteworthy among whom were Thomas Reid (1710–1796), who succeeded Adam Smith as professor of moral philosophy at the University of Glasgow, Dugald Stewart (1753–1828) and Thomas Brown (1778–1820), the latter two professors at the University of Edinburgh. Each of these thinkers professed empiricism as his general method, but claimed that Locke was in error in distinguishing so sharply as he did between ideas and the external objects which they represent in the mind. We directly perceive the real objects of the outer world as they actually exist, not ideas or copies of them; this is *realism*; we know realism to be true as a matter of *common sense*. Reid maintained that a sense percept is directly connected

with the belief or judgment that its object is present in the external world independent of our perception of it. Memory likewise implies knowledge of the actual occurrence of the event recalled. This is common sense; it cannot be proved; it does not need to be proved; it is self-evident.

Reid divides the principles of common sense into *contingent truths*, which may change from one time to another, and *necessary truths*, which are eternal. Among the principles underlying contingent truths are the existence of everything of which we are conscious, including our memories, our personal identity, our acts of will, and the objects of sense perception. Our inferences regarding probable events are also dependable to a certain ~~extent~~, according to circumstances. Necessary truths include first principles or axioms in grammar, logic, mathematics, aesthetics, ethics, and metaphysics; their validity is evident as a matter of intuition. The principles of morality are known intuitively by our moral sense or conscience; this position in ethics is called *Intuitionism*. Reid wrote clearly and sensibly, and at times showed considerable insight. He was, however, often prosy and superficial. Stewart and Brown improved upon his thought in various details and were more eloquent.

The Common Sense philosophy was popular in the churches; it freed the ministers from skeptical doubts. It long prevailed in Scotland, was influential in France and Germany in the period of reaction after the French Revolution, and, as we shall see, became the dominant philosophy for a century in America. Today Scottish common sense realism is only of historical interest. Kant furnished a far more profound refutation of Hume's skepticism which is still accepted in idealistic circles. In the twentieth century there has been a considerable return to realism, at least in Great Britain and the United States, but it owes little to Reid and his successors and is of a different type.¹⁴

IX. THE ENLIGHTENMENT IN AMERICA

There was one respect in which the aspirations of the philosophers of the Enlightenment were realized most adequately in the portion of the new world which after 1776 became the United States of America. This was the development of free political institutions. The United States was the land of liberty, and the more liberal philosophers in Europe regarded the infant nation with approval and admiration. For the fathers of the republic succeeded in embodying the principles of the Enlightenment in a successful government.

The American justification for claiming national independence (in the Declaration of Independence) was based upon Locke's assertion of natural rights, whose persistent disregard by a ruler is a legitimate ground for revolution. Much of the thought of the British and French Enlightenment is embodied in the national constitution, which, as its preamble states, is a social contract which the people of the United States have made with one another. The natural rights, on which the federal government may not encroach, are explicitly defined in the early amendments to the constitution. The federal government has no authority to interfere with civil liberties. Complete religious toleration and disestablishment of favored churches were soon effected in the separate states. If, as some claim, the federal constitution was more concerned, like Locke, with the property rights of the middle class than with the welfare of the masses of the people, it at least opened the way for the subsequent championship of the common man in the spirit of Rousseau by radicals like Thomas Jefferson and Andrew Jackson. The influence of philosophy upon the founders of the republic must not be exaggerated; they doubtless drew more upon their own experience than upon the speculative theories of Europe; still, the fact is evident that their work is a concrete embodiment of the spirit and ideals of the Enlightenment.

Many other tendencies of the Enlightenment found expression in America, although they did not lead to equally noteworthy accomplishments.

The two most brilliant American philosophers of the colonial period were Samuel Johnson and Jonathan Edwards. Both were idealists. Samuel Johnson (1696-1772), not to be confounded with the English man of letters of the same name, when a young tutor in the Academy that was to become Yale College, introduced the students for the first time to the works of Bacon, Descartes, Malebranche, Locke, and Newton. Later he became an Episcopalian clergyman and was for thirty years rector of the church at Stratford, Connecticut, where he prepared many students for college, wrote textbooks of some merit in logic, ethics, and metaphysics, and became widely known in the colonies as an authority on education. He was a friend of Benjamin Franklin and was offered the presidency of the new Academy at Philadelphia which later became the University of Pennsylvania. This post he declined, but soon afterward he became the first president of King's College in New York (now Columbia University). He had become acquainted with Berkeley during the latter's sojourn in America, and carried on a correspondence with him in after years. Johnson was in the main a disciple of Berkeley, but he made modifications in his own version of idealism, perhaps the most important of which was in the doctrine of *notions*. For Johnson, notions as opposed to ideas not only, as with Berkeley, include our knowledge of ourselves, other spirits, and God, but also universal principles of all kinds, such as Locke believed that we gain by intuition and demonstration. Admirers of Johnson claim that he overcame the limitations of British empiricism to a considerable extent, and even anticipated Kant and Hegel. He certainly is less of a nominalist than Berkeley was in his earlier and more famous period. Johnson won comparatively few converts to idealism. The American temper was too practical and realistic for

idealism to become widely popular. While Johnson could express himself with clarity, his writings lacked Berkeley's literary charm. Moreover, the fact that Berkeley and Johnson were both Episcopalians aroused sectarian prejudices against their philosophy.

Although Jonathan Edwards (1703-1758) was a tutor at Yale when a young man, and president of Princeton for a few months before his death, he was a pastor of churches in New England during most of his career. It is true that occasionally he preached a terrifying sermon in which he depicted the horrors of hell so vividly that the more suggestible of his listeners were thrown into convulsions, but he did much to start what in most respects was a wholesome revival of religion in the colonies. He was a kindly man, who protected the Indians, helped the unfortunate, and promoted the cause of education. When an undergraduate at Yale, before he reached the age of sixteen, he had already developed an idealistic position in philosophy from a critical study of Locke and Newton, probably entirely ignorant that Berkeley had reached similar conclusions.¹⁵ His published works, in which the emphasis is placed on theology, include metaphysical, logical, ethical, and aesthetic subjects. He manifests considerable knowledge and appreciation of the natural sciences. He was a mystic, and his attitude toward the world is illuminated and transformed by his experience of God. He is thrilled with the beauties of nature. Some of the principal points in his philosophy have been condensed in the following statement: "The universe is a structure of determinate parts ordered and governed by inviolable law. The knowledge of this universe comes to us piecemeal through sensation, appreciation and reflection; it is finite, but when touched by divine light, or the intellectual love of God, it takes on something of the quality of infinite wisdom. The good for man, and his virtue, consists in the 'regard for being for its own sake.' Through virtue man may approach that perfection which is the divine will and wisdom. Beauty in-

vests the universe and is the experience of those who behold it in the light of divine wisdom and passion." ¹⁶

Unfortunately Edwards' idealistic philosophy, which constitutes his chief claim to greatness as a thinker, did not impress his contemporaries so greatly as his Calvinistic theology, which affirmed the absolute sovereignty of God, predestination, and the total depravity of the natural man. He accepted the Bible quite literally, with its prophecies and miracles, which attest the activity of a particular providence intervening in the processes of nature.

Deism in America appeared largely as a reaction against the rigors of Calvinism. The latter affirmed the absolute sovereignty of a God that despotically interferes with the processes of nature and the free actions of human beings whose totally depraved characters can be redeemed only by the arbitrary infusion of divine grace, and even so only if they have been divinely elected for salvation. Such doctrines might seem plausible with reference to a corrupt and degenerate Europe, but they were inapplicable to free Americans who had traits of natural goodness, and were capable of unlimited progress. Before the Revolution theologians and philosophers usually remained within the orthodox churches, and contented themselves with citing evidence of order and design in nature as an argument in favor of a benevolent God who affords freedom and opportunity to mankind.

However, statesmen like Benjamin Franklin, Thomas Jefferson, and John Adams, who had come under the influence of the philosophers while in France, and who had read widely in Deistic literature, did go further. Such men rejected traditional Christianity altogether, although they continued to believe in the existence of God, and to revere Jesus Christ as a moral teacher and reformer. They favored the establishment of ethics on foundations independent of theology. Their activities were likely to be in other fields than philosophy and religion, and they wrote little on these subjects and published less than they wrote. Jefferson was a

zealous champion of religious toleration, including entire frankness in the discussion of religious opinions of all kinds.

Shortly after the American Revolution, more outspoken attacks were directed at the miracles and prophecies of the Bible, and the teachings of orthodox Christianity in general, by Thomas Paine (*The Age of Reason*) and Ethan Allen (*Oracles of Reason*). They thought, now that a political revolution had freed Americans from European tyranny in government, a like liberation ought to be effected in theology. They advocated the natural religion of Deism, as they understood it, on rational grounds, and believed in God, natural law, and man's innate goodness and capacity for progress. Paine's books and pamphlets circulated widely through the states, and were popular among the "infidels," not all of whom, it is to be feared, were men of the highest character. Deism in America, as in Europe, proved incapable of organizing churches or in other ways exercising a constructive influence upon individual character or social life. In the course of a generation it became discredited. A more constructive movement attracted the abler liberal thinkers under the leadership of Unitarian ministers like William Ellery Channing, and blossomed into the transcendentalism of Emerson and the Concord school. Orthodox ministers gradually came to preach a less repellent theology than the old Calvinism had been, an era of revivalism swept the country, and Deism lost whatever influence it had ever had.

A parallel to the materialistic tendencies in the English Enlightenment can be found in the works of Cadwallader Colden (1688-1776), Joseph Buchanan (1785-1812), Joseph Priestley (who came to America in 1794), Thomas Cooper (1759-1840), and Benjamin Rush (1745-1813). All of these men were interested in physics and physiology, and sought to explain mental processes in terms of the nervous system. They discussed the problems of psychology and epistemology, and made scientific contributions of more or less consequence. All were favorably disposed toward liberal religion,

and none subscribed to the atheistic materialism of Holbach.

There are various reasons why Scottish common sense realism soon got the better of Deism, idealism, and materialism, and became the dominant philosophy in most American colleges until the last quarter of the nineteenth century. Americans are probably realistic in temperament: it seems common sense to say that we directly perceive external objects and not images or copies of them, and that we likewise immediately observe our own existence and apprehend moral principles. The epistemological difficulties in idealism and materialism are thus escaped and skepticism is avoided. Moreover, Scottish realism was acceptable to religious orthodoxy, and was a safe doctrine for college professors to teach to their students. The religious denominations liked it, and most American colleges were under denominational influence if not control. The Scotch-Irish immigrants were filling up the middle states, and they brought the common sense philosophy along with their Presbyterianism to this country. John Witherspoon (1723-1794), a Scot who came to America in 1768 as president of Princeton, was able in a few years to silence the advocates of Berkeleyan idealism in the college and to make it the stronghold of Scottish realism which it remained for over a century. The principles of this philosophy were further developed in successive generations in Scotland, and imported to America. Two of the last and most famous American proponents of the Scottish philosophy, who did much to maintain its popularity, although they made few original contributions of importance, were Noah Porter (1811-1892), president of Yale, and James McCosh (1811-1894), president of Princeton.¹⁷

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PART III

THE IDEALISTIC PERIOD

CHAPTER XII

KANT

I. THE IDEALISTIC PERIOD

The period now to be considered begins with the publication of Kant's *Critique of Pure Reason* in 1781. In this book Kant believed that he was inaugurating as great a revolution in philosophy as Copernicus had brought into astronomy. Before Copernicus, astronomers had tried to explain the movements of the fixed stars on the supposition that they actually revolve, as they appear to do, about the human spectator at rest; Copernicus, on the other hand, showed that the apparent changes in the positions of the fixed stars are due to the altered perceptions of human beings upon a revolving earth. Before Kant, philosophers had been going on the assumption that our perceptions corresponded to characteristics in the external world; Kant, on the contrary, maintains that all objects in order to be known by us must conform to the constitution of our minds. So Kant and Copernicus alike attribute to the human mind characteristics which had previously been assigned to the external world.¹ Kant is by far the more radical of the two, because he claims that even the laws of mathematics and physics owe their origin and validity to the structure of the human mind. Our minds in a certain sense, which Kant is careful to explain, make the physical world in which we live. To be sure, each individual man does not manufacture a separate world of his own, according to his personal whims and caprices; men live in a common world that is governed by laws that are not less rigorous because they owe their existence to the constitution of the human mind.

In contrast to the skepticism and materialism of the later years of the Enlightenment, the philosophy of Kant seemed to his contemporaries in the highest degree enheartening. We need not feel that the outer world of our experience is alien to us, since it is a world that our own minds have made. In some way or other our selves must be superior to external nature. The ultimately real world of things as they are in themselves is not the mechanical world of man-made mathematics and physics. While Kant denied that we can know anything for certain about this ultimate world, we at least have the right to hope that in it our wills are free, our souls immortal, and that we shall know God.

Kant is too calm and cautious a child of the Enlightenment to be carried away by romantic enthusiasms; for him the affirmations of the human mind regarding God, freedom, and immortality are merely postulates which reason permits us to form, and which moral obligation and aesthetic appreciation encourage us to hope are true. Kant has destroyed the supposed knowledge of materialism and atheism in order to make room for faith. But that is all that he professed to have done. He did not consider himself an idealist except in the qualified sense of a "transcendental idealist," and by this expression he intended less than the term came to mean in later systems.

Kant, however, opened the way for his German successors to become idealists without reservations. Fichte thought that an infinite Ego has produced a world in which each finite individual finds the material to carry out his duty and perform his vocation. Schelling viewed the world as the manifestation of an infinite Spirit seeking new forms of aesthetic expression. The Romantic poets of Germany and England found the universe responsive in myriad ways to the inner urges of their spirits.

Hegel brought the German Romantic movement on its philosophical side to a close, and in a more rational manner taught that all the processes of nature are moments in the

development of an Absolute Mind that thinks in a logical process: Human history, art, science, and religion are all to be interpreted in accordance with principles that are spiritual, objective, and intelligible.

With the death of Hegel in 1831, this distinctive period ends. Philosophers since Hegel have differed in the importance which they have attached to the work of Kant and his immediate successors in Germany. Some find in Kant the central figure in the entire history of modern philosophy; he combined all that was best in previous rationalism and empiricism, and an understanding of his thought is an indispensable preliminary to any serious philosophical undertaking. Some would add similar claims for Hegel. Others think that no philosopher of this period is as important as the great thinkers of the Renaissance and the Enlightenment. However, it is probably safe to say that since 1781 every philosopher of consequence has in some way or other, positively or negatively, consciously or unconsciously, been indebted to Kant and his immediate successors.

II. LIFE AND PERSONALITY OF KANT

Immanuel Kant (1724-1804) passed his entire life in and near the provincial city of Königsberg in East Prussia, then a place of about fifty thousand inhabitants. He himself supposed that his family name was originally Cant, and that his paternal grandfather had immigrated from Scotland about the beginning of the eighteenth century; this, however, has been questioned. His father is known to have been a saddler in humble circumstances, and his sisters prior to marriage engaged in domestic service; his younger brother went through the university and became a Lutheran minister. His mother died when he was twelve, and his father when he was twenty-one. His parents were adherents to the strict sect of Pietists, and probably brought him up in an earnest and devout but narrow religious outlook.

Kant was a brilliant student at the university, and after graduation for some years supported himself as a private tutor in the families of the gentry living in the vicinity of the city. He returned to the university in 1755 as an instructor (*privat dozent*), and was promoted to a professorship only in 1770. During these fifteen years he seems to have carried a very heavy teaching load, at times delivering twenty-six or more lectures each week, in which he discussed not only the different branches of philosophy, but also mathematics, physics, physical geography, anthropology, education, and other subjects. This may have delayed his development as an original thinker, although he found time to publish several essays that would do credit to any ordinary university teacher. After he became a full professor in 1770 he was able to devote more time to creative work, although he still gave more hours to teaching than a German university professor would do today. At last, in 1781, when he was fifty-seven, he was able to publish the *Critique of Pure Reason*, his first book of world importance.

The development of Kant's thought falls into three periods. In the first of these he, like most German philosophers of the time, was a rationalist, somewhat under the influence of Leibniz and Wolff, and he thought it possible through rational thinking independent of empirical tests to arrive at ultimate truths. However, even in these years, his essays show marks of originality and discontentment with rationalism.

About 1765 begins his second period, in which he was partially influenced by the British empiricists. Hume's *Essays* and *Enquiries*, which he read in German translations, "awoke me from my dogmatic slumbers," and led him to conclude that all knowledge begins with experience, and that the ultimate external reality of things in themselves that lies back of our sensations cannot be known by reason. On the other hand, he probably read Leibniz' *New Essays* soon after their publication in 1765, and this may have strengthened

him in the belief that though there are no innate ideas, literally speaking, the mind has native capacities that determine the form of its experiences. During this second period, he became convinced that Hume's thought, if it were developed to its logical conclusions, would really imply that not only all principles in physics, but even those in mathematics as well, are merely probable generalizations based on observations and believed to be necessary as a result of habit and the association of ideas. Kant could not accept such radical conclusions as these; the principles of Euclid's geometry and Newton's physics, which Kant had often taught, seemed to him absolutely demonstrated knowledge and not merely probable generalizations. So his problem became how to reconcile the absolute certainty of mathematics and physics with the fact that all our knowledge begins with experience.

In the field of ethics, Kant seems during his second period to have become acquainted with as much of the thought of the British moralists, especially Shaftesbury, Hutcheson, and Hume, as he had access to in the German language. While at first attracted to ethical empiricism, he could discover in it no absolutely dependable principles like those of mathematics, and he found himself unable to accept as the basis of morality such subjective and unreliable principles as a moral sense, sympathy, pleasure, and utility seemed to him to be. Conceding a very limited amount of truth to the contentions of the British moralists, he concluded that the really fundamental principles of morality are grounded in the reason, and thereafter he remained a strict rationalist in ethics. During his second period, or soon afterward, Kant became an enthusiastic reader of Rousseau, to whose influence he probably owed his sympathy for the common people, his respect for the right of every man to be treated as an end in himself, and his preference for a democratic republic over a monarchical system of government.

His third and final period, often called the "critical

period," which alone is of world importance, is reckoned as starting not long after 1770, the year of his *Inaugural Dissertation* on beginning his duties as a full professor. By 1781 there had gradually developed in his mind his final position, a synthesis of rationalism and empiricism, which he named "the critical philosophy." *The Critique of Pure Reason* (1781) shows what actual knowledge in Kant's view is possible in mathematics, physics, and metaphysics. *The Critique of Practical Reason* (1788) sets forth rationally what we ought to do in morality, and for what as a matter of faith we may hope in religion. *The Critique of Judgment* (1790) contains his views on aesthetics and biology, and an inquiry into what analogies for belief in a spiritual world are furnished by nature, art, and organic life. These three *Critiques* are Kant's most significant books. In some respects the *Prolegomena to any Future Metaphysic* (1783) throws light upon the fundamental ideas of the *Critique of Pure Reason*, while the *Fundamental Principles of the Metaphysics of Morals* (1785) is a good introduction to his moral philosophy. Other than these, the short but illuminating essay on *Eternal Peace* (1795) is probably the work most likely to interest the general reader.

The facts about Kant's comparatively uneventful life which throw light upon the spirit of his philosophy can be summarized briefly. (1) The early training which he received at home gave him a lasting regard for religion. Although in later years he disliked going to church, and became indifferent to many theological beliefs and practices, he continued to be concerned with the fundamental problems of religion on which a philosopher can throw light,—those regarding God, freedom, and immortality. (2) Three factors combined to give him a stern sense of duty, and make him feel that moral obligation is unchanging and absolute. The first of these was his strict home training as a boy. The second was his frail physical constitution, which led him to observe a stern regimen regarding diet, exercise, and recreation.—in

consequence, he enjoyed reasonably good health and was able to continue writing until the last few years of his long life, but it implied stern self-discipline. The third factor was the atmosphere of almost military discipline in which civil servants (and a university professor was really a civil servant) were trained in the Prussia of Frederick the Great and his successors. (3) A Prussian lover of formal exactitude in all the affairs of life, Kant admired the precise thinking of mathematics and physics, and thought that only principles that are universal and necessary and absolutely certain deserve to be considered scientific knowledge at all. He never appreciated the inductive sciences. Yet he was too honest to be able to deny that the damaging attacks of Locke and Hume had made seventeenth and eighteenth century rationalism untenable. He must erect the foundations of a new rationalism which he hoped would prove unassailable.

As a teacher, colleague, and fellow citizen, Kant was generally liked. He made friends with many of the inhabitants of Königsberg from different walks of life. In his youth he was sociable and affable. He was then a stimulating teacher who insisted that his students should not take any system of philosophy for granted, but learn to think for themselves,—an unusually broad-minded position to take in Prussia at that time. He was less tolerant after he had developed his own philosophy, given it to the world, and become renowned and aged. He came to expect everyone to become convinced of the truth of his own philosophy, and he was inclined to regard those who failed to do so as rather obstinate and stupid. He remained, however, a kindly and courteous gentleman, who invited students and other friends to dinner, and enjoyed spending two or three hours afterward in general conversation which he knew how to make interesting. He continued to be respected as an earnest, honest, conscientious scholar of outstanding ability and great wisdom. The people of Königsberg were proud of him as the greatest philosopher of the time.

While the *Critique of Pure Reason* is often regarded as the most profound and brilliant treatise on philosophical subjects written in modern times, it is universally agreed that it is one of the most obscure and difficult books on philosophy and that it has no literary merit whatever. Kant's earlier writings had been reasonably intelligible, and they even contain a few eloquent passages. Why is this *Critique* so badly written, and why are his later books not much better? Probably the chief explanation is that by 1780 Kant felt himself approaching old age, while at the same time he had much to give the world. He must get it all written out and published as soon as possible. So he hurriedly put together the many notes that he had been accumulating since 1770, without revising them thoroughly in order to make the language and thought consistent. Few philosophers had as yet written in German, and in many cases there were no precedents to guide him in his diction. Moreover, he was presenting a novel philosophy and had to use words in new senses, and sometimes he was forced to use the same word to express different meanings which the reader can distinguish only from the context. However, commentators have been devoting their lives to the interpretation of Kant's *Critiques* ever since his time. General agreement has now been reached upon the fundamental outlines of his philosophy, the elements which most interest the beginner. It has been established that from 1781 onward his thought changed very little upon essentials. Controversy still continues upon the relative emphasis that Kant intended to place upon different aspects of his system, and upon other details that to a beginner are of minor consequence, however important they may be for specialists. (There are, to be sure, wide differences of opinion between idealists, realists, and other philosophers of our own time as to how far Kant was right or wrong in his various positions, but that is a different matter.) Any serious-minded reader who is willing to study Kant with patience and the aid of commentaries will have no difficulty

in understanding the general import of his philosophy. And he will gain the reward that comes to any person who makes himself at home with one of the master minds of the ages.

III. THE CRITIQUE OF PURE REASON

Like Locke and Hume, Kant makes a serious inquiry into the sources of human knowledge, and attempts to delimit the capacities of the human mind. His method of procedure, however, is quite different. They had begun with psychological accounts of the processes of sensation and reflection, tracing back complex ideas to their supposed origins in simple ideas. Kant, on the contrary, begins with the absolutely certain knowledge that man possesses in mathematics and physics, knowledge for which in his opinion the psychological descriptions of Locke and Hume are unable to account. Kant therefore constructs a new theory of the human mind, which he believes is adequate to account for its achievements. To a certain extent Kant's view of the mind no doubt professes to be psychological, and to understand him it is necessary to take note of the faculties into which he divides the mind; but the worth of his theory of knowledge does not depend upon his questionable psychology. Kant thought of the mind as possessing the three primary faculties of knowing, willing, and feeling, and to each of these one of his three Critiques is devoted.

1. *How are Synthetic Judgments a priori possible?*

The Critique of Pure Reason, dealing with the faculty of knowing, begins by calling attention to the fact that although all knowledge begins with sense experience, nevertheless the human mind is able to make *synthetic judgments a priori*, which have absolute validity for every possible future human experience, and he explains how the mind is able to do this. In any judgment, such as A is B, either the predicate B belongs to the subject A as something already contained

within it, or else B lies outside of the content of A, although it is connected with it. In the former case, to say "All A is B" is to make a purely *analytic* judgment, simply to break up A into the contents already contained within it, and to make more explicit what is already known. In the second case, to say "All A is B" is to give additional information about A that was not already implied in the notion of A itself. If we mean by "body" something that contains by definition its geometrical but not its physical properties, to say "All bodies are extended" is to make an analytic judgment, while to say "All bodies have specific gravity" is to make a synthetic judgment.

Now there is no difficulty in understanding how the human mind can make synthetic judgments *a posteriori*; that is, generalizations based upon past observations. To say (although this is not Kant's own illustration) that "all crows are black" would be such an *a posteriori* judgment. If in all human experience heretofore crows have always been black, the judgment is probably true. It does not exclude the bare possibility that sometime someone may find a white crow; this is not unthinkable, although it is unlikely. But when we say (and these are Kant's illustrations) "All bodies have weight," or " $7+5=12$," or "every change has a cause," we are making synthetic judgments *a priori*; that is, we are making judgments that we know must in the future as in the past apply to every possible human experience. We know *a priori* that no future human experience will ever contradict these judgments. "Weight" is not implied in the concept of "body," nor "12" in the ideas of "7" and "5," nor "cause" in that of "change." Such a judgment contains new knowledge that is *a priori*, universal, necessary, absolutely certain; it is not merely an empirical, *a posteriori* probability. How is it possible for us to make judgments of this kind in mathematics and physics, and can we do so in metaphysics? This is one way of stating the problem of the *Critique of Pure Reason*.

By *a priori*, Kant usually means what can be known in advance of experience, in contrast to *a posteriori*, what is known inductively as a generalization from experience in the past and merely presumed to be probably valid in the future. By *universal*, he means what holds without exception in experience. By *necessary*, he means what inevitably must occur in human experience under all circumstances whatsoever. The three expressions are constantly linked together, and for most purposes are treated synonymously. What is *a priori*, universal and necessary in the sense that it is applicable to all human experience, Kant denominates *transcendental*. What lies beyond human experience and observation, whether in the external world or in our inner mental states, Kant refers to as "things in themselves" and calls *transcendent* when he is careful in his diction; but he is sometimes careless and uses the word "transcendental" when he really means to say "transcendent."

2. The Transcendental Aesthetic

Kant divides the faculty of knowing into three subordinate faculties: the *sensibility*, by which objects are *perceived* in space and time; the *understanding*, by which they are known; and the *reason* (here used in a special sense), by which the mind attempts to form *Ideas (Ideen)* or *Noumena*, for which it finds no specific content in sensation, *e.g.*, the soul and God. It is obviously different to *perceive* an object from what it is to know or *understand* it; so, perception (or sensibility) and understanding are different faculties. When a person looks at a desk and sees it occupying space at a given time, this is due to the sensibility (although as we shall see later, the self is involved even here). But when a person tries to understand what he has perceived, he does more—he thinks of the desk as made of a particular kind of *substance* such as oak, as having been made in a factory and so the *effect* of a causal operation, and so on. If an engineer and a savage were to perceive a locomotive drawing a train of cars, both would

THE PROCESS OF KNOWLEDGE IN KANT'S CRITIQUE OF PURE REASON

Unknown "things
in themselves" in
the external
world evoke with-
in us

A confused
manifest of
→ sensations,
→
Which are organized
by the *Sensibility* ←
with its pure forms
of *space and time*
(Transcendental Aes-
thetic).

The Reason attempts
a complete unifica-
tion of the forms and
categories, for which
no sensuous content
is available, in its
Transcendental Ideas
(soul, World, God).
These have only a
regulative value.

The combined action of the Sensibility
and Understanding upon sensations fur-
nishes us with the objects of experience,
which are subject to the laws of Mathe-
matics and Physics.

KANT'S CRITIQUE OF PRACTICAL REASON

The Transcendental Ideas, now denomi-
nated God, Freedom, and Immortality,
become postulates suggested by the
moral law.

KANT'S CRITIQUE OF JUDGMENT
Analogies in nature, art, and organic life
suggest but do not demonstrate the truth
of the postulates of the practical reason.

see something moving rapidly through space; the same sensations would be received by the eyes and ears of both men; there would be no difference in what they would *perceive* so far as sensibility is concerned. But each would *understand* what he saw in a different way: to the one the locomotive would be a kind of steam engine; to the other it would be a devil of some sort. In the understanding of both men, however, there would be something *a priori* in common: each would think of the locomotive as consisting of some kind of substance and as acting in accordance with causation.

In the first part of the *Critique of Pure Reason*, the "Transcendental Aesthetic," Kant makes a critical study of the sensibility and its powers of *perception* (*Anschauung*, sometimes translated as *intuition*) in order to ascertain what are its transcendental or *a priori* elements. (The word "Aesthetic" is here employed in its root meaning of "perception," from *aisthanomai*, perceive.) Kant finds that in every perception there is a combination of sensations which are organized by the Sensibility through its own *pure forms of perception*, viz., *space* and *time*. Sensations, he thinks with Hume, arise in the mind from unknown causes (from what Kant calls things in themselves), and we are unable to tell whether or not they resemble anything in the external world. Sensations enter the sensibility as a "confused manifold" without order of any kind, so far as we know. They are, however, at once organized by the sensibility through its pure forms of space and time. Space and time, in other words, are not empirical concepts like our names of different colors and sounds which we get from comparing sensations with one another. On the contrary, space and time are innate *forms* which the sensibility imposes upon its sensations; they are inherent in the mind itself; they are not, so far as we know, properties of things in themselves independent of the sensibility. Space is the form of all objects of the "outer sense"; that is, of everything that appears to us to be in the world outside of us. Time is the form of the "inner sense"

which we first observe in all our inner mental states, and which we also give to the external objects which we perceive. While space and time are innate *forms* of perception, they are not innate *ideas* in the Cartesian sense; any ideas we derive about space and time are the result of reflection, and are not innate.

Kant's evidence for his theory of space is as follows. While we can imagine any particular object to be removed from the position in space which it now occupies, on the contrary we cannot imagine the portion of space which it now occupies to be removed and placed elsewhere; space for us is an infinite magnitude extending in three dimensions. Space is not a conception or generalization which we have formed by comparing different bits of space with one another; on the other hand, space as an infinite magnitude is a form already presupposed in every perception that we shall ever have. Most of all, Kant relies on the absolute certainty of geometry, whose principles are *a priori*, and apply to every possible human experience. The absolute certainty of geometry shows that space cannot be an empirical generalization based on observing different sense experiences; space must be a form of our own minds, else it could not be *a priori*. Wherever we shall be, or whatever we shall experience, so long as we have the same kind of sensibility that we now have, the principles of geometry will remain absolutely the same. That is why synthetic judgments in geometry are possible.

Kant's evidence for his theory of time is somewhat similar. Time is presupposed in all perceptions whatsoever; this holds not only for our experiences of the outer world as is true of space, but also for all experiences of our own inner mental processes, including those of memory and imagination. Whatever we shall ever experience will be in time. Time is an infinite magnitude in one dimension. We can never be aware of any coexistence or succession in external objects or our own mental states that will not be in time. We can conceive of change only through time. Kant does not designate a

specific science of time corresponding to geometry in the case of space, but it is clear that in his view arithmetic, algebra, and the discussions of motion in physics all presuppose the succession of events in time, and would not have the certainty which they do possess if time were not a pure form of perception. Further evidence for his theory of time and space is given by Kant in the Antinomies (to be discussed later), according to which all attempts to think of space and time as independent of the mind involve hopeless contradictions which can be escaped only by Kant's interpretation.

To understand what Kant believes that he has established up to this point, two observations must be made. First, Kant is not attempting to give a psychological theory of the perception of space and time. He would not be concerned if experimental psychologists can show that a child's judgments of space and time grow up gradually as a result of trial and error, association, or what not. He could reply that, however this may be, the absolute certainty of mathematics would be impossible if the objective character of our scientific knowledge of space and time were not due to the very structure of our minds. Secondly, while it is true that Kant knew only the Euclidean geometry with its three dimensions, and supposed it to be the only geometry possible for man, he would need only to modify his position a little to make room for the more recent kinds of geometry that have since been discovered. Kant might claim that all the new geometries have certain postulates or presuppositions in common with the Euclidean, and that these at least are *a priori* in his sense of the term. He might further assert that while geometries in more than three dimensions are *conceivable*, they are not *perceivable* or *imaginable*; we shall never be able to perceive or to form mental pictures of such objects. Some interpreters of Kant believe that he merely claimed that space and time are *a priori* forms of the *human* sensibility, and that he would have conceded the possibility that intelligent beings may exist in the universe who organize their sensations in

forms of perception altogether different from space and time, at least as we know them.

Kant affirms, therefore, that space and time have *empirical reality*; that is, they hold for all possible human experience, and in this sense are real. Likewise, space and time have *transcendental ideality*, by which he means that they are only ideal or subjective and do not apply to things in themselves. So he calls his philosophy *empirical realism* and *transcendental idealism*. (This is one of the instances in which he overlooks his own distinction between "transcendental" and "transcendent" to which reference has been made; he might better have called his position "transcendent idealism.")

3. *The Transcendental Analytic*

Having shown that the *a priori* aspects of the *sensibility* are the pure forms of space and time, Kant next makes an inquiry into the faculty of *understanding* to discover what *a priori* or transcendental principles it possesses. This inquiry begins with a table of twelve types of judgments derived from formal logic. This table manifests the different ways in which the processes of abstract thought are carried on, by the understanding apart from the sensibility. The judgments of Quantity are Universal (All S is P, No S is P), Particular (Some S is P, Some S is not P), Singular (This S is P, This S is not P, when "this S" refers to a single individual). The judgments of Quality are Affirmative (All S is P, Some S is P, This S is P), Negative (No S is P, etc.), and Infinite or limitative (All S is non-P). The judgments of Relation are Categorical (in which a positive assertion is made, all the illustrations thus far mentioned are categorical), Hypothetical (if a certain antecedent proposition is true or false, a consequent proposition follows, as, If A is B, C is D), and Disjunctive (one and only one of two or more propositions is asserted to be true, but which is left undetermined as, Either A is B or C is D). The judgments of Modality are Problematical (S may be P, etc.), Assertorical (S is P, etc.),

and Apodictic (S must be P, etc.). These judgments, as Kant here lists them, he regards as purely formal, devoid of content. They disclose the bare machinery of the understanding, and give no positive information about anything in experience.

TABLE OF JUDGMENTS

<i>Quantity</i>	<i>Quality</i>
Universal	Affirmative
Particular	Negative
Singular	Infinite
<i>Relation</i>	<i>Modality</i>
Categorical	Problematical
Hypothetical	Assertorical
Disjunctive	Apodictic

TABLE OF SCHEMATIZED CATEGORIES

<i>Quantity</i>	<i>Quality</i>
Unity	Reality
Plurality	Negation
Totality	Limitation
<i>Relation</i>	<i>Modality</i>
Substance	Possibility and Impossibility
Causation	Existence and non-Existence
Reciprocity	Necessity and Contingency

For Kant, no knowledge of experience can be given by the merely formal processes of the understanding working alone, apart from the content furnished by the sensibility. Before they can be applied to experience, these different kinds of judgments must be transformed into *categories*, and the categories must be schematized. Kant does not give us a complete list of the twelve categories before they have become schematized, but he mentions a few. One is the pure category of *ground and consequent*, which is derived from the hypothetical judgment. If A always logically implies B, we can say if A is true, B is also true; the category of ground and

consequent as thus stated has no reference to time. But all our experience goes on in time; for *time is the universal rule or "schema"* through which categories must be organized if they are to be workable. So the unschematized category of ground and consequent when brought into relation to succession in time becomes the schematized category of *cause and effect*; that is, whenever any event A appears in time prior to B, the latter will inevitably follow as its effect. The relation of cause and effect for Kant implies a necessary connection between its two terms, which Hume could not account for psychologically; but for Kant the certainty of physics shows that this necessary connection must actually exist, so he attributes it to a category of the understanding.

Kant gives us a list of twelve schematized categories which are derived ultimately from the twelve types of judgments, and immediately from unschematized categories. The schematized categories of Quantity are Unity, Plurality, and Totality. To use a simple illustration of our own: look at any object like a book; it can be understood as a unity, for it is one book; again, it can be thought of as a plurality, many leaves and a cover; furthermore, it is a totality, a many organized into one. The category of totality is a higher synthesis or reconciliation of the preceding two categories, each of which seems opposed to the other, yet both of which are true, in their own ways, of every object that we ever experience. The schematized categories of Quality are those of Reality, Negation, and Limitation. We assert something to be true or *real*; we then have to *negate* this from another point of view; finally we make a carefully *limited* statement. To use an illustration that is not Kant's: Someone says "This is a hot day." Another person says, "No, it is cold." The exact temperature is then ascertained by use of a thermometer, and we know just how hot and cold the weather really is. The categories of Quantity and Quality are required, in addition to the pure forms of space and time, to explain the *a priori* knowledge of mathematics. By their

means numeration and measurement become possible. So Kant calls them the *mathematical categories*.

The schematized categories of Relation make *a priori* knowledge in physics possible, and Kant calls them the *dynamical categories*. These are Substance, Causation, and Reciprocity. They likewise are ultimately derived from formal judgments and are schematized through time. Substance for Kant is not an "unknown substratum" as Locke sometimes considered it, but a category through which the understanding combines different experiences of an object and recognizes its permanence. Through this category we are able to know that the objects in a room are identical with those we perceived in it a few days ago; matter or energy, or whatever physics finds to endure from one experience to another, is a profounder and more exact application of the category. Causation enables us to explain scientifically the changes that take place in objects. Through the category of Reciprocity, or reciprocal inter-action, we recognize that substances coexisting in space interact upon one another causally. This may be illustrated by the stones in an arch, each of which helps to support the others in their places, by the planets and sun of our solar system which by mutual attraction keep each other in their orbits, or by the inter-action and interdependence of the various organs in the body of a plant or animal. Kant regards Reciprocity as a synthesis of the categories of Substance and Causation.

The schematized categories of Modality are more complicated. These are Possibility and Impossibility, Existence and non-Existence, Necessity and Contingency. If we have a concept in our minds—say some conceivable but hitherto undiscovered chemical element, for instance—we may suppose the concept to be speculatively *possible*, provided it conforms to the *a priori* laws of our understanding. If this concept contradicts these laws, it is *impossible* for us to experience an object corresponding to it; a room, although it would be an illustration. Every object that enters an objective

experience of course *exists*, and furthermore it is *necessary*, because it is subject to the categories. Everything that exists for us is both possible and necessary. Kant is a complete determinist in the *Critique of Pure Reason*, so far as human experience is concerned. He is unwilling to concede to Leibniz that there is a vast realm of possibilities enclosing a smaller domain of existences and a still more restricted circle of necessary existences.²

Implied in all that has thus far been said is Kant's conception of the *self*. As we have seen, Hume at times spoke of the mind as merely a succession of unrelated perceptions, although at other times he regarded the self as capable of forming habits, and of feigning an identity between the different moments of its experience, and so coming to believe in the permanence of external objects and in its own personal identity. Kant saw that Hume was right in claiming that he could find no particular sensations or perceptions that remain constant in every experience of life; yet, on the contrary, as Hume's own treatment of causation and personal identity shows, there must be some continuity in our minds, else we could never identify objects from one time to another, and recognize ourselves as the same persons that we were yesterday.

In the original edition of the *Critique of Pure Reason*, Kant asserted that the activity of the self passes through three phases. First, there is *apprehension in perception*, or intuition, in which the manifold of sensation is organized in the forms of space and time and the categories of the understanding, so that we observe the particular objects in our environment distinct from one another and yet related rationally, temporally, and causally. Secondly, there follows *production in imagination* (what might better have been called retention), a process by which the experiences of a moment and place are preserved in the mind. Thirdly, by *recognition in concepts* we identify objects in memory as the same as we have experienced in the past; we identify our-

selves as the persons who have hitherto experienced them; and we are able to compare and classify the different objects of our experience, forming concepts or universals.

To take a concrete illustration of our own: you are able to perceive some new kind of fruit, say a mango, as an object in a given time and to note its various characteristics, because your mind combines and holds together sensations, and through its innate forms of space and time and its categories, organizes them into a perceived object. This object is retained in your mind. When later on you see another mango, you recall the previous one; you recognize the second mango as like it; so you bring the two of them under a common concept, "mango." You are able to do all this because of what Kant calls "*the synthetic unity of apperception*," that is, because all your sensations are organized by the faculties of your mind into a system of enduring objects recognized by an abiding self. We know nothing of this self except as we observe it in our experiences, as an "I" that accompanies every perception and thought, and yet is not itself a perception or thought. We know not what it is, but we know something of what it does: that is, it makes for itself an external world in three dimensions subject to the laws of mathematics and physics, and we know that both this external world and our inward mental states of every kind follow one another in a time that can be measured and is subject to universal laws. All *a priori* and universal and necessary laws are due to the very constitution of this mind or self; the certainty of the laws could be explained, Kant thinks, in no other way.

Furthermore, the world of experience in which a person lives and moves and has his being is not a private world which he has made for himself. For he is aware of other persons whose experiences of it are harmonious with his own. And he can alter none of the laws of space and time and substance and causation at his will. So, after all, although the world is of the mind's own making, it is an objective

world which all of us experience alike. Hence, the unity of apperception in which we know the world of experience is not subjective but *objective*. It is objective in the sense that it is universal and necessary for every human experience. It would therefore seem that Kant does not mean that you and I each have separate pure forms of space and time and a private set of twelve categories in the way that each of us has two eyes and ears, hands and feet. The forms of the sensibility and the categories of the understanding belong not to us as separate individuals, but to what Kant calls *Bewusstsein ueberhaupt*, consciousness in general. What he means by "consciousness in general," he never explains. For his idealistic successors this becomes a universal all-embracing Mind in which our separate minds participate. But Kant is too cautious to commit himself to any pantheistic speculations about such a universal Mind or Self.

While for purposes of exposition Kant describes first the processes of perception due to the sensibility, and later the processes of knowing due to the categories of the understanding, he does not mean that the work of the sensibility precedes in time that of the understanding. Both are inseparably present in every experience, and neither can operate in isolation from the other. Percepts without concepts would be blind and devoid of significance; concepts without percepts would be empty, devoid of any content. In any object that anyone ever experiences, sensations, space, time, and the categories are combined, and this combination is due to a single, unitary self. This is what Kant means by the "synthetic unity of apperception," which he also calls the "transcendental unity of apperception" because of its *a priori* features.

4. *The Transcendental Dialectic*

By the pure *reason*, when Kant uses this term in contrast to the sensibility and the understanding, he means the faculty by which the mind endeavors to employ its innate

forms and categories in fields where there is no sensuous experience to which to apply them. Such thinking at once becomes involved in a maze of contradictory arguments, which Kant denominates *dialectic*. We gain nothing that can be called knowledge as a result of such futile speculation. Yet we are impelled to dialectical thinking through the urgent desire to bring all thought into a comprehensive unity, and to gain an acquaintance with things in themselves. Kant suggests that a dove might imagine that if there were no air to resist its wings it could fly unimpeded into the highest heavens, whereas if it were actually to attempt to fly in a vacuum it would fall helplessly to the ground. Likewise, Kant says, we can make no progress whatever when we try to use the categories to form all-embracing *Ideas* of the reason, as when we refer to the soul, the world, and God to characterize things in themselves supposed to exist outside of experience. Yet these *Ideas* of the reason are not completely worthless. They have a *regulative* or limiting value; they reveal to us that there actually is a transcendent reality beyond experience, and that the world of natural science which we have constructed with our categories cannot be this ultimate reality. The Transcendental Dialectic therefore shows us the limits of knowledge and opens the road to the *Critique of Practical Reason*, in which postulates in favor of God, freedom, and immortality will be made on the ground of moral *faith*.

One of the *Ideas* of the reason is the *Soul*. Within experience we are aware of the unity of apperception and of a constantly present "I." So we are tempted to try to apply the categories to the self, and to think of it as a *soul*, i.e., a single, simple, unitary and indestructible immortal substance which persists independent of experiences. This, however, is idle speculation. We know the self only in conjunction with the objects of experience, and when we try to think of it in isolation from them we fall into hopeless fallacies which Kant calls "paralogisms." The theologians and philosophers

who have attempted to describe the attributes of the soul and to prove its immortality are without justification. On the other hand, the materialists who deny immortality are equally unwarranted. This is a subject on which we have no experience whatever. We may indeed hope that we are immortal, but pure reason can afford us no knowledge on the subject.

Another Idea of the reason is the *World*. The reason attempts to isolate the material objects which we observe in our experience and to assume that they constitute a world that exists independent of our experience as a thing in itself (materialism or realism). The futility of this reasoning, Kant exposes in four *Antinomies*. An antinomy is a fallacious argument in which each of two absolutely contradictory propositions seems to be established by the refutation of the other.

According to the *first antinomy*, the material world supposed to exist independent of experience must either have a beginning in time and be limited in space, or else have no beginning in time and no limits in space. Suppose that the world has a beginning in time and limits in space. Then it must have been preceded by a time before it began, an absolutely empty time in which there would have been nothing to produce a world! And this world would have to exist in an absolutely empty space that extended everywhere beyond it; but this is inconceivable. Let us now take the other alternative, and suppose that the world has no beginning in time and no limits in space. Then an eternity must already have elapsed at the present moment, and also at every instant in the past. Likewise, an infinite amount of space must extend in every direction from the point at which we are situated, and the same must be true at every other point in space; this is absurd. The solution of the antinomy is simple if one accepts Kant's philosophy: space and time are merely the forms of our perception and not characteristics of an independently existing world. Every experience we shall ever

have will be presented to us in time and space; we can look as far forward and backward in time and space as our experience will take us; but apart from our experience we have no ground to suppose that time and space exist at all. Time and space are nothing but the forms of human perception.

The *second antinomy* shows that it is impossible to contend that matter, of which an independently existing world would presumably consist, is either infinitely divisible or composed of simple and unextended parts (like the atoms of eighteenth century physics and the monads of Leibniz). We cannot conceive of any particle of matter, however small, that would not have a right side and a left side, an inside and an outside, and so be at least mathematically divisible; therefore all matter, it would seem, must be composite and infinitely divisible. On the other hand, if every particle of matter were infinitely divisible, it would have to be composed of an infinite number of parts each of which would be absolutely simple and unextended; but it is impossible to conceive how the extended objects that we perceive could be composed of parts that have no extension at all, even though there were an infinite number of them. (This is only an extremely simplified paraphrase of a portion of the considerations that Kant advanced in his discussion of the second antinomy.) Again, the solution of the antinomy is easy if we accept Kant's philosophy. For if space and time are merely forms of our perception, we can keep dividing the objects presented to our experience in time and space so long as we please, and desist whenever we choose to do so. For no objects exist in time and space to be divided or left undivided except as we perceive them and think them, organizing our sensations under the forms of perception and the categories of the understanding.

Kant's *third antinomy* confronts us with the dilemma that either all events in the world must be mechanically determined, or else that to some extent there must be freedom and indetermination. If every event is the effect of a pre-

ceding cause, then there must have been an infinite series of causes in the past and it is impossible to think how that could be. Kant solves this antinomy in a different way from the preceding ones. The first of the two alternatives holds for the world of our human finite experience, for it is true that we never find an event without a cause. But we must remember that the world of our experience is after all merely one that our minds have constructed. So it is possible that the other alternative may hold for the world of things in themselves; in it there may be such a thing as the freedom of the will—we do not know, but on moral grounds the *Critique of Practical Reason* will show that this is probably true.

Kant's *fourth antinomy* states that on the one hand there must exist an absolutely necessary Being (God) belonging to the world either as a part or cause of it, and that on the other there nowhere exists such a necessary Being. The solution he offers is similar to the third antinomy. Nowhere within human experience do we find such an absolutely necessary Being. On the other hand, it is conceivable that such a Being may exist in the world of things in themselves, and this again the *Critique of Practical Reason* will postulate on moral grounds.

Whether Kant's antinomies can be solved only in the manner that he proposes is disputed. Idealists are likely to agree with him. Realists of course claim either that his antinomies are wrongly stated, or else that they can be solved in another way. Possibly Kant did not altogether understand what is meant in mathematics by infinite numbers and magnitudes; on this the present writer is incompetent to express an opinion. There is nothing in Kant's treatment of the antinomies that is intended to attack in any way the absolute validity of the exact natural sciences within all possible human experience. He merely objects to a realistic or materialistic view of the position that scientific laws occupy in ultimate reality. This is a purely metaphysical question with

which scientists are not much concerned and are usually glad to leave to the disputations of philosophers.

The third Idea of the reason is *God*, whom Kant sometimes calls the *Ideal* of the reason. Having combined our inner experiences in a supposedly transcendent Soul, and material objects in an equally transcendent World, the reason proceeds to find a common ground for both in God. This is rational theology. God, according to Kant's conception, derived from the rationalists before him and ultimately from the scholastics of the Middle Ages, is the *ens realissimum*, the most real and perfect Being, infinite, omniscient, and omnipotent, to whom all other beings owe their existence. The reason is logically led to form the conception of such an Ideal; in its desire to unify all thought this is its inevitable conclusion. The problem is whether it is possible to demonstrate that such a Being actually *exists*. As finite intelligences, our knowledge is necessarily restricted to our experience, which never affords us knowledge of the infinite. Our forms of perception and our categories are constitutive of all the knowledge that we derive from the senses, but are not constitutive of things in themselves. According to Kant, the *Ideal of the Reason* (God) is purely a conception that our minds are logically led to form, but whose actual existence as a thing in itself we can never confirm in our experience. Nevertheless, the existence of God remains a possibility which in the *Critique of Practical Reason* Kant intends to show we are justified in accepting as a postulate upon grounds of faith. While, therefore, this Ideal is never *constitutive* of any reality known to us, it is at least *regulative* in the sense that it discloses a possibility which may be true, and shows that our knowledge in natural science is limited to human experience in its scope and application.

Kant thinks that all philosophical attempts to demonstrate the existence of God reduce themselves ultimately to three. First of these is the *ontological* argument, revived in modern times by Descartes, and defended in modified versions by

Spinoza, Leibniz, and others. This argument attempts to show that since the idea of God as the most real Being contains every positive quality or attribute, it includes that of existence. But existence, Kant shows, is not an attribute which can logically be deduced from a definition. To be sure, from the definition of God as the infinite and most real Being, the attributes of omnipotence and omniscience follow logically by analytic judgments, since they are implied in the definition. But to assert existence would be to make a synthetic judgment, to add another predicate not contained in the idea itself. It is as impossible to deduce from a definition of God the fact that He exists, as it would be to infer that a hundred thalers exist in my pocket book because I have a clear and distinct idea of a hundred thalers as so existing. I can indeed confirm or refute my impression that there are a hundred thalers in my pocket book by opening it and examining it—that is, I can appeal to experience. But there is no experience by which I can verify the existence of God.

The second argument for the existence of God is the *cosmological argument*. This runs: "If anything exists, an absolutely necessary Being must also exist. But I exist. Therefore an absolutely necessary Being exists." Here is an appeal to experience; it is a fact in experience that I exist. But in the major premise a leap is made beyond experience in the assertion that the existence of anything contingent and dependent implies the existence of something absolutely necessary and perfect; we do not know that to be true, and this part of the cosmological argument reverts to the ontological argument and depends upon it, for it assumes that existence can be deduced from mere ideas, those of contingency and necessity. The version of the cosmological argument that proceeds from effects to causes and assumes that since I exist and did not cause myself to do so, therefore there must be an absolutely necessary Being that is the ultimate cause of all existence, contains the same fallacy.

The third argument, which Kant calls the *physico-theological*, he says must always be regarded with respect. It begins with experience and calls attention to the signs of order, design, and purposiveness that we see about us in nature, evidences which are impressive. But these are insufficient to establish the existence of an infinite Being such as the *ens realissimum*; the most that they can do is to suggest the possibility of the presence of a limited God who works as an architect upon material that He did not create, and to which He has been able to give only the limited amount of order that we observe. John Stuart Mill, William James, and some other nineteenth and twentieth century philosophers and theologians have contented themselves with this evidence, and affirmed the probable existence of the limited God which it suggests.

Hegel and some other idealists since Kant have attempted to reinstate the ontological argument in forms that escape Kant's objections. Roman Catholic philosophers reject the ontological argument, but continue to affirm the cosmological argument in the various forms in which it was stated by St. Thomas Aquinas, attempting to refute Kant's objections to it. A considerable number of contemporary philosophers believe that Kant effectively refuted the ontological and cosmological arguments. Many theologians believe that the presence of God is actually revealed to human experience, and that Kant did not take sufficiently into account the empirical evidence of the divine presence to which not only saints and mystics but humble believers in every walk of life have testified throughout the ages.

IV. MORAL PHILOSOPHY

In the *Fundamental Principles of the Metaphysics of Morals* and the *Critique of Practical Reason*, Kant endeavors to discover an *a priori* principle which ought to govern the will, or practical reason, and put ethics upon an absolutely

certain foundation. The *a priori* principle which should regulate all human conduct is a command or imperative, and since it admits of no exceptions it is categorical. Kant's name for it is therefore the *categorical imperative*. Since ethics deals merely with how men ought to act, regardless of how they do act, he believes that he is justified in relying upon a rational appeal to our moral intuitions to establish the authority of the categorical imperative, and in his moral philosophy Kant is accordingly an uncompromising rationalist, making no concession to empiricism.

Kant believes that if any rational being is honest, he will admit as a self-evident proposition that the only absolutely good thing conceivable in the world, or for that matter out of it, is a "good will," or, as we should say, a good character. Even such apparent virtues as courage and perseverance may be used in nefarious undertakings, so they cannot be regarded as absolutely and intrinsically good without qualification. But a good will, which acts solely from respect for duty regardless of consequences, summoning all resources within its power, no matter whether it succeeds in its efforts or whether its exertions are blocked by external circumstances, is good in itself. It is like a jewel that shines in its own light, and cannot fail to dazzle every impartial spectator.

Such a good will of course obeys the *categorical imperative*. Kant gives various *formulations* of this imperative. The *first* of these, freely paraphrased to make it intelligible in the language of our own time, is: "Act solely on that principle which you would be willing might become a universal law of nature on which every other person would also always act." This is best understood by Kant's four illustrations of possible violations of it. Suppose a person were tempted to commit suicide. This would evidently be wrong, because he could not wish it to be a universal law of nature that every other person should commit suicide. For if this were to occur, soon nobody would be left to commit suicide. Thus suicide could not become a universal law of nature.

The act formally contradicts itself. The second illustration is of a person in financial difficulties who is tempted to ask another person for a loan which he can obtain only by promising to pay it within a certain time, which he privately knows will be impossible. This act would be wrong because if it became a universal law of nature that everyone sought loans by making lying promises, no one would ever lend money. Such acts therefore cannot become universal practices, and it is wrong to engage in them. The third illustration is that of a person who is tempted to lead a life of idleness, and not develop his own capacities. This Kant concedes could indeed become a universal practice—the South Sea Islanders live in that way—but no rational being could ever approve of such conduct becoming universal; and no person can rightly do himself what he would disapprove of others doing. The fourth illustration is that of a man who refuses to give assistance to others when it is in his power to do so. This is evidently wrong, because he may sometime be in need and wish others to assist him. So he would not wish it to become a universal law that no person should ever assist anyone else.

Kant believed that in his formulations of the categorical imperative he had arrived at *a priori* principles for the proper direction of human conduct as universal in applications as $7 + 5 = 12$. That Kant is right in believing that no person ought to make an exception of himself and think himself justified in performing actions that he would not be willing that others should do in similar circumstances, almost every student of ethics will agree. But that Kant has stated a universal formula that will determine *a priori* what is right and wrong in any moral situation that can ever arise, regardless of circumstances, and admitting of no exceptions whatever, is questionable. Most of us today are empiricists rather than rationalists in ethics.

Kant's *second* formulation of the categorical imperative, again freely paraphrased, is: "Treat every human being, in-

cluding yourself, as an end in himself and not as a means to the advantage of anyone else." In other words, respect yourself and respect other people impartially, and exploit no one. The same four illustrations are given. To commit suicide or to live a life of idleness would be to fail to respect your own moral obligation to make the best of your opportunities; you ought not to yield to feelings and inclinations when they conflict with duty. To lie to other persons or to refuse to assist them are instances in which you would fail to respect their claims to justice and generosity on your part and their right to be treated as ends in themselves.

Before coming to the third formulation of the categorical imperative, we must notice Kant's famous *law of Autonomy*. The moral law, as stated in the categorical imperative, is a law of our own rational nature. A violation of duty, prompted by contrary feelings and inclinations, such as a desire for pleasure, would be *heteronomous*, and in performing such an act a person would be neither rational nor free. We are only autonomous and free when we act rationally and do our duty.

Most interpreters of Kant think that he recognized a large domain of conduct into which duty does not enter, in which it would be equally right to do something or not to do it, or to do it in different ways. Under such circumstances it is proper to act in whatever manner will afford most pleasure. Kant is an hedonist to the extent that he believes that in all cases in which we do not act in obedience to duty, we proceed from a desire for pleasure. It is indeed always wrong to prefer pleasure to duty, but in cases in which questions of duty do not enter, it is not wrong to seek pleasure. Moreover, since the moral law is a law of one's own nature, one should never seek to improve the characters of others, and by threats or rewards to induce them to act in a way that could be of moral worth only if done from their own regard for duty. We cannot make other people moral by coercion; they must themselves choose to be moral if they are ever to

become so at all. Only actions done from the motive of duty have any moral worth. Accordingly it is our duty to obey the moral law ourselves and to promote the happiness of others. Kant believes in a large measure of individual liberty, but he affirms that real freedom can be found only in adherence to the categorical imperative. Since the moral law is self-imposed by our own moral nature, Kant is sternly opposed to theologians who attempt to base morality upon arbitrary divine commandment. Even God could not rightly command us to perform any action contrary to the categorical imperative. Morality does not logically depend upon theology. On the contrary, our chief ground for belief in the existence of God, as we shall see, is derived by Kant from the more immediate certainty of moral obligation.

The *third formulation of the categorical imperative* is that one should always act as if one were a member of an ideal *kingdom of ends*, in which everyone would be at the same time sovereign and subject. In such a kingdom of ends every person would act in accordance with the categorical imperative, which means that he would act rationally and in accordance with the conduct of every other person. Consequently the laws of such a kingdom would be willed by everyone and obeyed by everyone; in that sense everyone would be sovereign and make the laws which as a subject he would obey. This, of course, is purely an ideal; no such perfect society exists.

In his later writings on political philosophy, Kant desires governments to approximate this ideal as closely as possible. They are most likely to do so in what he calls a "republican" form of government,—one in which government is carried on by officials elected by the people. Legislation enacted by elected representatives is more apt to express the common rational will than could be true in a pure democracy in which laws were enacted by popular vote in an election or in an assembly of all the people. Here he differs from Rousseau. He approved of the American Revolution, and his thought

is in accordance with the republican institutions formulated in the constitution of the United States drawn up in 1787. He was also in sympathy with the earlier stages of the French Revolution, prior to the Reign of Terror. In his essay on *Eternal Peace*, he hopes that a time will arrive in the distant future in which all nations will have republican constitutions, and he believed that whenever that time shall arrive it will be possible for the different national governments to come to a common understanding, and prevent future wars. This essay is remarkably anticipatory of the aspirations of Woodrow Wilson and the institution of the League of Nations. Peace will be assured to the world if governments ever learn to act in the spirit that Kant advocates in this essay.

The *Critique of Pure Reason* affirms that human experience is organized in accordance with the principles of our own minds—the forms of perception and the categories—and that in it there is no freedom. But, on the contrary, while we can predicate nothing positively about the soul, this *Critique* suggests the possibility that in the ultimately real world of things in themselves or noumena, our wills may be free, our souls immortal, and God exist. After all, we are in some sense superior to the world of merely human experience that our minds have made. The *Critique of Practical Reason*, while giving no positive proofs, affords grounds for accepting God, freedom, and immortality as postulates. There is, therefore, a certain *primacy of the practical reason* of the second *Critique* over the purely theoretical reason of the *Critique of Pure Reason*; where pure reason must either be silent or fall into dialectical illusions like the antinomies, practical reason can affirm postulates.

The will can be regarded as free when, and only when, it acts in accordance with the moral law of duty. Now no man ever does his duty completely in this life; his contrary impulses and external circumstances stand in the way. Yet it is clear that he *ought* to do his duty. And it cannot be true that anyone ought to do the impossible. "Thou oughtest, there-

fore thou canst," Kant exclaims. What one ought to do, in some sense one can do; on this affirmation Kant erects his temple of faith.

The *summum bonum* or *complete good* includes as its *supreme element* virtue, conformity to the moral law. Moreover, every rational being is *worthy* of happiness: those who are virtuous ought to be happy. So the complete good, it can be seen, rationally includes both virtue and happiness.

In an ordinary mortal lifetime a man is neither completely free, virtuous, nor happy. Yet he *ought* to be all three. To give a rational meaning to this "ought," we must postulate *freedom* and *immortality*, as well as *God*,—ideas suggested to us as possibilities in the first *Critique*.

In no single period of time can man be entirely free and fulfil his duty. Only if we suppose that life continues endlessly beyond the grave, does continual progress toward the infinite goal of perfection become possible. (A mathematical series such as $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} \dots$ shows progress toward a limit that is never reached.) An infinite progress in time toward such a goal would appear as attainment to an Infinite Mind not limited by time as we are. An Infinite Mind would view such a progress as an eternally completed act.³ In the suggestion of an Infinite Mind—what Carlyle was later to call an "Everlasting Now"⁴—Kant anticipates a favorite thought of idealists since his time. So the moral law in its commandment to do our duty implies Immortality and Freedom.

Moreover, as has been pointed out, those who do their duty are *worthy* of happiness. In this life we know that happiness does not automatically follow the fulfilment of duty. The coincidence of the two can only be assured if we further postulate a just Judge who, by the force of his omnipotent will, shall ultimately reward the virtuous and punish the wicked according to their deserts.

Kant has here really given us two separate arguments for Immortality and God, which we may denominate the argu-

be made to a mere *feeling* which claims universality. This feeling is a completely *disinterested* pleasure; it is neither a matter of personal selfish interests, nor yet of interest in the moral law. When I feel that something is beautiful I do not ask what advantage I can gain from it, nor what duty I owe to anyone in consequence of it; I forget myself completely in the object. The feeling of beauty is aroused by objects in the apprehension of which the sensibility and the understanding readily combine: nature and art are enjoyed for this reason. Flowers, the songs of birds, natural scenery, poetry, music, sculpture, and painting furnish examples. Kant is a romanticist to the extent that he believes that what will be perceived as beauty cannot be prescribed in advance by formal rules. Rules can be laid down only for the artisan who manufactures something to be useful for a definite purpose. The beautiful object thus manifests a paradoxical "purposiveness without purpose"—a feeling of harmony (or purposiveness) within our mental processes which has no further end beyond the aesthetic enjoyment itself. Objects of natural beauty have no conscious design of which we are aware. A *genius* is an artist who works like nature, who produces objects of beauty, not according to set rules which he can lay down for others to follow, but as an expression of feelings of his own which he is able to communicate through his art.

In experiences of the *beautiful*, as has just been said, the object is in harmony with our powers of sensibility and understanding and for that reason affords pleasure. In cases of the *sublime*, the experience is different. Here an object is perceived which our understanding is unable to fit neatly within the categories, and so the object arouses within us a feeling of wonder and awe. In the *mathematically sublime*, one feels oneself in the presence of what is immense, colossal, not easily measurable. Such an experience, Kant has read, a visitor feels upon his first entrance into the vast basilica of St. Peter's in Rome; another illustration is that of the pyramids of Egypt when seen at the right distance to produce

the mathematical effect. (A visitor to New York has the feeling Kant describes when he looks upward at the high buildings from the streets in their immediate vicinity.) In cases like these the spectator is overwhelmed by the immenseness of the structure which lies before him. The feeling, however, resembles the beautiful in being disinterested "purposiveness without purpose." In experiences of the *dynamically sublime* in nature, we perceive great might that has no dominion over us and so evokes awe without terrifying us. Kant cites as examples a thunder storm, a volcanic eruption, a mighty waterfall, and a storm in the ocean, provided each is witnessed from a position of safety. Experiences of the mathematically sublime suggest that our theoretical reason is greater than the categories of the understanding, while those of the dynamically sublime intimate that our moral worth is superior to physical nature. In both, our selves are felt to be far greater than the world of experience which our understanding has made. Perhaps Kant's most eloquent illustration of the sublime is the well-known passage at the conclusion of the *Critique of Practical Reason* where he exclaims: "Two things fill the mind with ever new and increasing admiration and awe, the oftener and more steadily we reflect on them: *The starry heavens above and the moral law within.*"⁶ The contemplation of the heavens from the position I occupy in space leads on to the consideration of worlds upon worlds and systems of systems which cannot be counted or measured; yet I feel that my own mind is greater than the universe which it has made in terms of its own perceptual forms of time and space, and the categories of its understanding. Likewise, the moral law with its postulate of immortality—an unending progress onward into the infinite—suggests that I am a being superior to the mechanical world.

The Critique of the Teleological Judgment exposes the limitations of the mechanistic view of nature when the attempt is made to apply it to living organisms. Necessary and

valuable as is such an interpretation of life for scientific purposes, it can never adequately explain the functions and origin of even a blade of grass! In any living being each part is determined by the whole and the whole by each part; there is a mutual and interdependent purposiveness which can never be wholly accounted for mechanically, not because of gaps for which future research will account, but because of the unique characteristics of life. Is it possible that the whole world is more like an organism than a machine—a conclusion to which Hume had already come? Kant thinks it possible. It may be that throughout all nature there is an immanent purposiveness. An organism is determined by its own inner purposes; it is not a machine made by a workman for purposes external to itself. The organism is purposive from within itself. May this also be true of nature as a whole? May the entire world be the outward manifestation of an inward Spirit?

Unlike his idealistic successors, Kant is too cautious to affirm that a critique of feeling can prove the truth of these suggested possibilities. The beauty and sublimity of nature and the purposiveness of organisms indeed suggest to us that the world may be the production of an infinite Artist, of a genius who has produced it as human artists produce their creations. We may hope that this is true, but we do not know. So the third *Critique* gives additional support to the postulates of the second, and widens the scope of values recognized by adding those of an aesthetic character. But Kant retained to the end too much of the caution of the Enlightenment to claim that moral postulates and aesthetic analogies are demonstrable knowledge.

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CHAPTER XIII

FICHTE AND THE ROMANTIC MOVEMENT

I. LIFE AND PERSONALITY OF FICHTE

When Johann Gottlieb Fichte (1762–1814), the oldest son of a humble weaver of ribbons in a village in Saxony, was nine years old, a nobleman arrived at the church one Sunday morning too late to hear the sermon. On expressing his disappointment, he was told that the boy could report the substance of the sermon with complete accuracy. The nobleman was so impressed with the performance that he forthwith provided for Fichte's education until his own death a few years later. Thereafter Fichte struggled on as best he could, with what little assistance his parents could give him and perhaps with scholarships, working his way through the university. He stopped at times to earn money by private tutoring, and while teaching in a family at Zurich he became acquainted with Johanna Rahn, who made him a brilliant and devoted wife after their combined financial resources finally allowed them to marry. In the meantime Fichte continued to wander from one place to another as he found employment as a tutor.

Fichte at this time was influenced in his philosophical thinking chiefly by Spinoza, then much read in Germany, until his attention happened to be called to Kant's *Critiques* by a pupil who desired instruction in them. Fichte forthwith became an enthusiastic convert to Kant, and wrote to Johanna that he expected to devote many years to the study of this wonderful philosophy which threw light upon all the problems that had been troubling him. On returning from Warsaw, where he had failed to give satisfaction as a tutor,

he stopped off at Königsberg to visit Kant, who received the still crude and unprepossessing young man rather coldly. Fichte was challenged by this rebuff and resolved to convince Kant of his merits. He stayed on in Königsberg and in a few weeks wrote a monograph in which he applied the critical philosophy to some topics in religion which Kant had not himself as yet treated. This treatise pleased Kant, who arranged for its publication. By some mistake the printer left Fichte's name off the title page, and the book appeared anonymously. The thought and style led the reviewers to suppose that it was the work of Kant himself, and they so informed the public, giving it extended notice and high commendation. Kant promptly announced who the real author was, and Fichte suddenly became a famous philosopher. He and Johanna married.

The next year (1794) he was called to a professorship at the university at Jena. There, and in the neighboring small city of Weimar, lived many of the greatest scholars and men of letters of the time, including Goethe and Schiller. They welcomed Fichte warmly, regarding him as the most brilliant interpreter of the philosophy of Kant. Fichte proceeded in his lectures and publications to interpret Kant very freely, amending the critical philosophy wherever he thought he could improve it, claiming that he was making a more consistent statement of what Kant really meant. The now aged Kant did not like these emendations very well. But Fichte was a profound thinker and a natural orator, full of youthful vigor and enthusiasm, and the feeling became general that Kant had had his day, and that Fichte was the coming philosopher.

However, Fichte did not long remain personally popular at Jena. The young man was precipitate in his conduct. He lacked discretion. For instance, since there was no free hour on week days when he could give a series of popular lectures on ethics which all who wished to do so could attend, he delivered them Sunday mornings at a time which, while not

actually conflicting with church services, gave the unfortunate impression that he was offering his own discourses as a substitute for attendance at religious worship. Again, using more justice than tact, he vehemently attacked the student societies for misconduct of which they were undoubtedly guilty. He so aroused their resentment that they broke the windows of his house, hooted at his wife when she appeared on the streets, and forced him and his family to reside for a time at a distance from the city. Finally, in a journal which he edited, Fichte published articles by himself and others on theological subjects which were somewhat sensational in tone and led him to be accused of atheism. Fichte was enraged at this misinterpretation, and wrote such violent attacks upon his accusers that the grand council of the duchy of Weimar began to wonder if it would not be necessary to censure him, although they had no desire to interfere with the freedom of the faculty to express their opinions in a dignified manner. The possibility of a censure so infuriated Fichte that he wrote a letter to the privy councillor threatening to resign if a censure were administered, and intimated that many other professors would also resign. At this point the government lost all patience, voted the censure early in 1799, interpreted Fichte's letter as a resignation, and dismissed him from the university. While many students signed a petition in his favor and most of the faculty sympathized with him to some extent, the government found it impracticable to reinstate a professor whose stay in Jena for the past five years seemed to show him an inveterate trouble maker. None of the other professors resigned at the time, although several subsequently accepted invitations to other universities when they had the opportunity to do so. The storm at Jena soon blew over, but Fichte was obliged to leave.

He went to Berlin, where he was welcomed on his arrival by such leaders of the new Romantic movement as the brothers Friedrich and August Wilhelm Schlegel, Schelling, and Schleiermacher. He delivered various series of lectures

which attracted considerable attention and added to his reputation, but he did not succeed in obtaining a permanent university chair until the new University of Berlin was opened in 1810.

Fichte's experience at Jena had a salutary effect upon him in many ways. It led him to put more emphasis on the constructive sides of his philosophy, especially in its application to religion, and without modifying his real positions he succeeded in making them more acceptable. This is already evident in the *Vocation of Man*, published toward the close of 1799, which is perhaps the most eloquent and readable popular statement of his general philosophical standpoint. Other works of his Berlin period which are still read are *The Nature of the Scholar* and *The Way to the Blessed Life*. The *Characteristics of the Present Age*, although a fantastic interpretation of history, contains some illuminating suggestions. Most attention at the time was aroused by his *Addresses to the German Nation*, courageously delivered in the winter of 1807-1808, when Berlin was occupied by French troops. These patriotic addresses helped greatly to revive the national spirit and thus to make possible the popular uprising known as the "War of Liberation," which in 1814 drove the French out of Germany after Napoleon's retreat from Moscow. During this war, Fichte's wife at his behest visited the hospitals and helped to take care of the wounded soldiers. She caught a dangerous fever, from which she slowly recovered, but Fichte caught it from her and died.

Fichte was a deeply conscientious man, with a Kantian regard for duty. He always acted from sincere motives, and stood uncompromisingly for what he believed to be right. When at Jena, he was an impetuous young man in his thirties who did not consider circumstances carefully before he adopted a course of action, and who had a bad temper which he had not yet learned to control. Believing as he did that every man has a divine vocation which he has been brought into the world to fulfil, he proclaimed his own convictions

as if they were the voice of God. Those who were unconvinced naturally thought him egotistical and arrogant. After he went to Berlin his temper softened somewhat, and he became more amiable. His subsequent publications show a highly moral and deeply religious spirit. His eloquence and earnestness did much to kindle national patriotism, as well as popular desire for improved international relations, and hope for better economic and cultural opportunities for all men. No one can read Fichte today without feeling his emotions strongly aroused, either favorably or unfavorably. Even those who are antagonized by what seem to them his egotistical traits cannot fail to respect his obvious honesty and good intentions.

II. THE SCIENCE OF KNOWLEDGE

Most German philosophers during the decade which closed the eighteenth century were students of the philosophy of Spinoza, and approved of its more spiritual side while dissatisfied with its rigid determinism. They read the works of Rousseau and liked his enthusiasm for liberty, but in view of the excesses of the French Revolution they realized that liberty must be guided by duty and intelligence. They welcomed the new philosophy of Kant which offered this guidance, and in addition asserted the superiority of rational freedom to the mechanical order of physical nature. Kant, however, was advancing in years and could no longer write with the fire and eloquence of youth. Fichte was admirably equipped to do this and to make a more popular appeal for the critical philosophy, particularly in its moral, social, and religious aspects.

Furthermore, many were ready to agree with Fichte that there were difficulties and inconsistencies in the philosophy of Kant which called for correction. Kant left sharp dualisms between the Sensibility and the Understanding, and between the will as practical reason and as scientific knowledge. Kant

seemed unjustified in his arbitrary assumption of things in themselves lying outside of experience, about which nothing can be said positively. Why assume such unknowable things in themselves? Why not believe, rather, that all reality arises within experience as the product, if not of our finite minds, then of a universal Spirit? In this way the skeptical tendencies in Kant would be wholly overcome, and all reality would be spiritual in nature and in harmony with the highest aspirations of man.

Looking at these problems in a more technical way, Fichte thinks that the forms of perception, categories of the understanding, the categorical imperative, and the postulates of the practical reason must be connected in a logical manner which can be stated. Kant maintained that certain *a priori* principles are presupposed in each science and in moral life. Fichte wishes to trace a logical relationship between these *a priori* principles and to show their common derivation and interdependence. Fichte's earliest education had been theological, and later he had readily come to believe with Kant that what can be known in religion is derived from ethics. He now goes further than Kant, identifies God with the moral order of the universe, and limits God largely to this. Less familiar than Kant with the sciences, Fichte does not realize the difficulties which stand in the way of an attempt to derive all nature from the moral law and its manifestations. He therefore does not hesitate to propose a new science which he calls *Wissenschaftslehre* ("science of sciences" or "science of knowledge"), containing the *a priori* principles presupposed in every science and in all knowledge of ourselves and nature. He believes that all universal knowledge of every kind can be logically derived from the principles of this new science, although he admits that specific particular events cannot be so deduced by the reason, and will have to be observed as they actually occur. Fichte is therefore a more thorough going rationalist than Kant, but his rationalism as an outgrowth of the Kantian philosophy differs

markedly from the earlier rationalisms which preceded Kant, and has a new mode of procedure.

It is impossible to outline here all of the details of Fichte's new science (*Wissenschaftslehre*), but some notion of its method and spirit can be given. Fichte bids you examine yourself carefully; you find within your consciousness contents that seem to you to be entirely dependent upon your own imagination and will—you are free to produce and retain them in your mind or dismiss them as you choose. On the other hand, you discover other contents in your consciousness that appear to you as external objects, entirely independent of your volition, and you have a feeling of their necessity. Which, then, are really more ultimate,—your volitions or these seemingly external objects? As a finite intelligence, you never observe what seem to you to be external objects, except when you are at the same time aware of yourself; conversely, you are never aware of yourself without also being aware of such objects. However, your intelligence is able to abstract some of the contents of consciousness from the rest, and to think of them as existing separately. You can thus think of the apparently independent objects of experience as if they were really independent of you, and you can suppose that they owe their origin to an external thing in itself. To be sure, you are never directly aware of any such thing in itself, but you may find it convenient to assume its existence and to regard it as the ultimate cause and ground of all that you experience, and you can go further and suppose that your own self is merely a combination of impressions that owe their origin to such a thing in itself. This position Fichte calls "Dogmatism"; it implies materialism and fatalism, and denies the independent existence of the self (or ego) and the freedom of the will. Fichte concedes that dogmatism is a thinkable position which some philosophers have held. Fichte insists, however, that the only reason for assuming the existence of such an unknown and unexperienceable thing in itself is that, if you begin by assuming

the independent existence of the objects of perception, you have to go on and attribute their ground to something outside of your experience.

On the other hand, you can, if you will, proceed to construct an entirely different, and, Fichte claims, a much better philosophy. You can abstract the ego (the self) from the total contents of consciousness and assume it to exist as something independent of experience, as an I-in-itself, and you can go on to regard this I-in-itself as the ultimate source of all the objects of experience. This view is *Idealism*; it has the theoretical advantage that it postulates beyond experience as the I-in-itself something similar to what we actually know in experience instead of a thing in itself which is unlike anything we ever experience (an argument that reminds us of Berkeley). The idealistic view regards the I-in-itself as free and spiritual, and the seemingly external world of matter as its product.

Fichte admits that neither of these two possible philosophies—dogmatism and idealism—can absolutely refute the other. Both are thinkable. But they are wholly irreconcilable. It is necessary to make a choice between them. Since reason cannot decide, the selection will have to be made according to one's own inclination and interest. There are men who have little consciousness of their own moral worth and independence, or who have become perverted through intellectual slavery, scholarly luxury, and vanity; such men do not have enough character and determination to become idealists. On the other hand, men who are self-reliant, and unwilling to believe themselves mere creatures of external circumstances, will become idealists. Which kind of philosophy a person chooses will depend ultimately upon what kind of man he is ("was man für ein Mensch ist"). Fichte appeals here to the moral character and self-respect of his readers to lead them to accept idealism.

Fichte outlines an idealistic logic according to which not only the Kantian forms of perception and the categories, but

also the contents of sense experience, are all derived from the activities of the self or ego. It will be sufficient to sketch a few of the initial steps of this deduction. Fichte says that it is possible to begin with any self-evident proposition, and he chooses as an example the simplest and most fundamental of the laws of thought, the principle of identity—A is A. In this judgment we do not necessarily affirm that A actually exists, but we at least maintain that if A exists, A does exist. This is certainly not a very reckless assertion; no one could possibly object to it. In making this statement we assume a necessary relation X between the A that is the subject and the A that is the predicate of the judgment. This X must exist, Fichte insists, in the self; the same self which asserts the first A must assert the second A. Unless this were so, we could never perceive the identity between the two. So to make even such a trite statement as A is A, we must assume the presence of an identical self; therefore, the proposition A is A implies the underlying proposition I am I; that is, the I that asserts the subject A is identical with the I that asserts the predicate A. Moreover, in the judgment I am I, *existence* is asserted; if an identical I or self did not really exist, it could not suggest even as a possibility that A is A. The existence of the self is a presupposition of every judgment that we can make in science or in every day life. In the self, therefore, is implied the category of *reality*. The argument stated in this paragraph may be regarded as a *thesis*.

Opposed to this thesis, Fichte formulates an *antithesis*, an argument in apparent—but only apparent—contradiction to it. Take the proposition Not-A is not A. This is obviously true. To be able to think this proposition we already assume an A, which Not-A is not. And the A, as we have already seen, implies the ego or self. The Not-A, then, is something that is *not* the ego; it is the external world opposed to the ego. Implied here is the category of *negation*.

Furthermore, the A and the Not-A each limits the other; neither could be thought without the other, and each has the same claim to reality as the other. Here we have the category of *limitation*, which is a *synthesis* or union of the two opposing categories of reality and negation in a whole in which each has its place. This whole is again within the experience of one self, which first *posits* (asserts) itself, then posits a non-self or world in opposition to itself, and then proceeds to combine the two in a whole in which each is limited by the other. The process by which all this is done is one of *activity*; the larger ego, which first posits the lesser ego, next the outer world of the non-ego, and thirdly their union in a whole, is an active agent, a *will*. "In the beginning was the deed" is a favorite expression of Fichte's; he believes in the primacy of the practical reason.

Fichte in a succession of theses, antitheses, and syntheses, which arise out of or in opposition to those that precede them, attempts to show that the laws of thought (identity, contradiction, and sufficient reason), time, space, substance, causation, and the other Kantian categories are all produced by the activity of the ego. Were not an identical self present, we could never become conscious of our own continued existence or the organization of the outer world. Therefore, the ego is the fundamental reality in all experience. Kant had thought that knowledge begins with experience in which a manifold of unorganized sensations caused by the stimulation of unknown external things in themselves is presented to the mind and organized by the sensibility and understanding into the objects of the world as it appears to us. But Kant admitted that we know nothing of the nature of the things in themselves. Fichte argues that it is unnecessary to assume any things in themselves with the exception of the Ego. We are aware of our own selves in our experience; it is sufficient to posit a larger Ego outside of experience which is the source, not only of the forms of our minds by which sensations are organized into the objects of our experience, but

also of the sensations themselves. So Fichte's philosophy is unqualifiedly a form of Idealism.

As we have just seen, Fichte by the use of logic attempts to show that the processes of all thought, presupposed in all experience, reveal an identical Ego that is always present. This Ego cannot be simply your or my finite personality. For you and I live in a common world which we experience together. So the larger Ego, which has posited you and me as separate individuals and set up in opposition to our wills an external world of which we become aware through our sensations, must be a *common Mind or Will*—what Kant had called “consciousness in general” or “the unity of apperception.”

Fichte in his earlier writings was almost as hesitant as Kant regarding the nature of this larger Ego. Kant's arguments for believing in God were based chiefly on moral considerations; so Fichte in his Jena period seemed disposed to limit God to “the moral order of the universe,” and made Him impersonal. Consciousness seemed to be limited to its appearance in finite egos like ourselves. Such a view seemed to more conservative religious people to allow no place for the God of Christian worship; this was doubtless one of the reasons why Fichte was charged at Jena with atheism. In the popular essays and addresses of the Berlin period, Fichte ascribed more definite content to the infinite Ego, and tried to show that his conception of God is sufficient for religious purposes. He never made it clear, however, whether God for him is in any sense personal, or a wholly satisfactory object of religious devotion; he often seems to imply that God comes to consciousness of Himself only in human minds when the latter find an external world in opposition to themselves. Even so, he makes the world fundamentally moral and spiritual in nature, and asserts the divine origin and immortal destiny of mankind.

In Fichte's metaphysics the infinite Ego (God) has posited finite individuals and an external world in opposition to

them. This external world exists only for moral purposes—in order that in it individuals can find opportunity to perform their duties and realize their vocations. You could accomplish nothing if there were not obstacles to overcome, materials upon which to work. Hence Fichte says, “the world is a task,” and again that the world is “the material of duty made manifest to the senses.” There is something sublime about this thought. The external world arises in our minds in order that we may overcome it, bend it to our wills, and realize ourselves in it by performing our duty! The author remembers being told while a student in college that “the most daring metaphor in English literature” is found in the following lines in Wordsworth’s *Ode to Duty*:

“Thou dost preserve the stars from wrong;
And the most ancient heavens, through thee, are fresh and strong.”

To identify duty as we feel it in our consciences with the law of gravitation that keeps the stars in their courses would not have seemed metaphorical to Fichte; if this *Ode* ever came to his notice he probably regarded it as a correct statement of literal truth. The stars have come into existence only to serve as material which we and other finite individuals can use in performing our duties and realizing our vocations.

III. ETHICAL IDEALISM AND ITS IMPLICATIONS

One way of describing the difference between Kant and Fichte is to recall that for Kant the primacy of the moral is a matter of *postulates*; we are to act *as if* the maxim on which we act were a law of nature, *as if* our wills were free, *as if* we were immortal, *as if* there were a God. In Fichte’s thought, the “as if” disappears. The moral law *is* the law of nature; the whole external physical world *is* the material of duty made manifest to our senses. Our wills *are* free. Our souls *are* immortal. God exists as the moral order of the universe. Kantian postulation has been replaced by Fichtean

affirmation. Fichte's attitude is characteristic of the Idealistic period. He and the others speak with complete confidence; reason is able to disclose ultimate truth. Once the thing in itself had been rejected, there remained no limit to confine the range of philosophical speculation, and no test of the validity of conclusions necessary other than rational consistency and comprehensiveness.

Fichte founded his *theory of rights* upon the freedom of individuals in their external relations with one another. An individual can realize his freedom only in a world of material things and of other persons; without these he could not even know himself to be free, much less accomplish anything. So the Infinite Ego has posited each finite ego in relationships with other egos and the physical world. It follows that each individual must recognize the *equal rights* of others, for instance, the rights to bodily freedom and property. Free individuals enter accordingly into a covenant to recognize their reciprocal rights, enact positive laws expressive of their common will, and set up an executive to enforce them. In his *theory of the closed state*, Fichte proposes to assure individuals the "right to work" by governmental regulation of economic processes in a manner that partially anticipates socialism, but seeks to preserve individual initiative. He wished the "closed state" to be self-sufficient economically and in other ways, so that it can better assure the freedom of its individual members undisturbed by what occurs in other nations. In this he foreshadows recent doctrines of autarchy.

In contrast to the external relations between individuals with which the theory of rights is concerned, *ethics* for Fichte deals with the internal conflict which arises within each person between his natural impulse for self-preservation and pleasure and his rational impulse to secure freedom through conformity to the moral law. The two impulses must be reconciled in such a way that rational freedom will prevail and the individual will do his duty and fulfil his vocation.

This can never be completely achieved in time, so the individual is *immortal* in order that he may accomplish his infinite duty. Fichte contemplates with joy the prospect of an unending progress in the performance of duty, which is assured to man because he is superior to nature, which latter indeed exists only in order to make this possible.

Each individual has come into the world with a unique *vocation* which only he can perform. He should feel his responsibility and respect his own moral worth and dignity. This is particularly true of the *scholar*, a man in a learned profession; so Fichte devoted a series of lectures to the *Vocation of the Scholar*, which he afterwards revised under the caption, *The Nature of the Scholar*. Most individuals are slothful, unawake to their full responsibilities and opportunities. However, now and then appears a man in whom the consciousness of his vocation is dominant, who has powers of leadership and is able to arouse his fellows and to incite them to their best efforts. Such men are *heroes*. (Here is the probable source of Carlyle's view of the great man in history in his *Heroes and Hero Worship*.)

Moreover, each *nation* has its vocation in history, its distinctive contribution to make to the advancement of mankind. This is true of the Germans above all, as Fichte urges in his *Addresses to the German Nation*. Unconquered by the Romans, the ancient Teutons kept their independence and handed down a pure culture to their descendants. Unless the latter preserve and develop their ideals of liberty, the whole future advancement of the human race will be seriously blocked. Germany has already given the world Luther and religious freedom, Kant and his inspiring philosophy, Pestalozzi and his plans for the reform of education. A nation that has produced men like these is capable of giving more to mankind. At the time he delivered these addresses, in the winter of 1807-1808, he could foresee no swift prospect of liberation from Napoleon, but he urged the nation to preserve its inward self-respect and prepare the children for

better times by means of a thorough reform of national education. While, it is true, he intimates that the Germans are the greatest people that have ever lived and that humanity can progress only with their assistance, he probably hoped merely that Germans might achieve a consciousness of national unity and assume a position of moral and cultural leadership. He had no thought of foreign conquests, world domination, or other features that have been charged against German imperialism subsequent to 1870. No philosopher has ever made a patriotic appeal upon a higher moral plane. In subsequent German history, the revolutionists of 1848 and the founders of the short-lived Republic after the World War under the Weimar constitution have shown more of the spirit of Fichte than either Bismarck or Hitler.¹

The ultimate destiny of man, reaching out into eternity, beyond all things earthly such as private rights, ethics, politics, the vocation of individuals and of nations, is union with God in perfect love. A consciousness of this union can be gained by the good man in the present life. This Fichte asserts in what is probably the best statement of his philosophy of religion, *The Way to the Blessed Life*. In this series of lectures he advances an ideal reminiscent of German mysticism and of Spinoza's conception of the intellectual love of God, but restated in terms of his own philosophy. This he claims to be the correct interpretation of the message of Jesus given in the gospel of John.

Before Fichte died, attention in Germany had already been diverted from him to Schelling and other Romantic philosophers whom Hegel in turn was beginning to supersede. Yet Fichte has continued to exert influence. His popular writings are easier to understand than the works of Kant, Schelling, or Hegel. They have been widely read in Great Britain and the United States. They did much to inspire Carlyle and the British Romantic poets, as well as Emerson and the other "transcendental idealists" of New England. Two technical philosophers with considerable prestige at the

opening of the twentieth century who owed much to Fichte were Rudolf Eucken of Jena and Hugo Muensterberg of Harvard. Fichte's rejection of the thing in itself and his emphasis upon the ego are in the main approved by idealists at the present time, although many of them think that his account of the manner in which the not-self is posited by the ego is subjective and arbitrary, and that Hegel's account of the evolution of the categories is preferable. Realists of the present time of course find Fichte guilty of a misuse of the egocentric predicament similar to that with which they charge Berkeley. (See Chapter IX, section VI.)

IV. THE ROMANTIC MOVEMENT

The Romantic movement in modern literature and philosophy had important sources in Rousseau, Spinoza, Kant, and Fichte. Rousseau had broken away from rigid classical conventions in thought and language, and had affirmed that feeling and personal experience are more important guides to life than abstract reasoning. He awakened poets and artists to the beauties of natural scenery, and taught them how to find in it something that responds to the aspirations of the human heart. The pantheism of Spinoza, rediscovered after a century of neglect, taught that nature and humanity have their common ground in God, and that man may gain exaltation of spirit and inner peace and contentment if he identifies himself with the universe whose substance is God. Kant asserted in the *Critique of Pure Reason* that the outer world of our experience is in a measure the product of our own minds, or at least of consciousness in general, so that we are greater than the physical nature by which we seem to be surrounded. In the *Critique of Judgment* he found, in our feelings of the beautiful and sublime in nature and art and the evidences of teleology in living organisms, the suggestion that the world may be the outward manifestation of a Spirit who has produced it in somewhat the manner

in which a genius creates works of art. Fichte maintained that the outer world is posited by an Infinite Ego in order that we may employ it to realize ourselves.

In response to these stimulating if not intoxicating suggestions of the philosophers mentioned, a literary movement arose in Germany, in which Goethe and Schiller were the most eminent figures. More active in the Romantic movement as such, however, were a group of younger writers—poets, essayists, dramatists, novelists, literary critics—notable among whom were the brothers Augustus and Friedrich Schlegel, Ludwig Tieck, Friedrich von Hardenberg (Novalis), and two extraordinary women, Caroline Schlegel and Dorothea Veit. The movement did much to inspire the course of modern German music from Beethoven to Wagner. Friedrich Schleiermacher, the founder of nineteenth century German Protestant theology, was also a leader in the movement. The British poets who owed much of their inspiration to this group include Wordsworth, Scott, Coleridge, Byron, Shelley, and Keats.

While the leaders of the movement were at first close friends of Fichte, they presently became dissatisfied with some elements in his philosophy. Fichte seemed to over-emphasize the ego and to minimize the reality of the outer world, which after all has some claim to reality on its own account. It was hard to believe that everything in nature exists merely in order that men may do their duty. Morality has its place, no doubt, but beauty is more important. The artist has his rights. The Romanticists, unlike Fichte, cared less for Kant's *Critique of Practical Reason* than for his *Critique of Judgment*. They welcomed the suggestion that the world is the product of an artist not wholly unlike themselves. In their own creations they were giving expression in beautiful forms to the promptings of the Infinite Spirit. Their poems and dramas were vehicles by which this Spirit is coming to consciousness of itself! The real purpose of the universe is to develop men of genius in whose works ultimate

beauty can manifest itself in artistic forms. And every young literary aspirant felt quite sure that he was a genius. He felt the Infinite Spirit surging up within him.

From a social standpoint, this period was in part a continuation of, and in part a reaction to, the French Revolution. The latter had seemed at first to be a splendid assertion of individual liberty and the rights of man. But it had gone wrong. Order had been restored only by the dictatorship of Napoleon, which indeed had brought feudalism to an end in western Germany, but only at the cost of depriving the nation of its liberty. The Romanticists realized that it is impossible to break completely with the past as the Revolution had tried to do. They found it necessary to reinterpret the past in the new spirit; for instance, to appreciate the beauties of medieval legends and Gothic architecture in a fresh light. So the Romanticists read back their own sentiments into the culture of earlier ages, and invested the past with new beauty. Thus their own culture became enriched and more firmly rooted.² In time the extravagances of the Romantic movement came to an end. However, the interest in the past which it had aroused led to valuable investigations by German historians, philologists, biologists, and other scientists. But with the replacing of the Romantic by the scientific spirit, the golden age of German literature unfortunately came to an end.

V. SCHELLING

The principal philosophical interpreter of the Romantic movement was Friedrich Wilhelm Joseph von Schelling (1775-1854). He is the connecting link between Fichte and Hegel. Like both of them, his early training was theological rather than scientific, and his thought shows consequent merits and limitations. His kindliness and amiability won him general good will. He was extremely brilliant as a youth; he began to publish philosophical papers when he was eighteen. Throughout his long life almost every new publication

showed a variation in standpoint from those which had gone before, and he was never able to develop a consistent system satisfactory to himself or his friends. However, in some ways he advanced beyond Fichte, and without his preliminary spade-work Hegel might not have been able to formulate a more adequate statement of idealism.

✓ Schelling's earliest important writings appeared while he was at Jena, where first he studied under Fichte and in 1798 became a member of the faculty. In this, his first period, under the influence of Fichte, he insisted that the ultimate ground of our knowledge can lie only in the Ego; so he tried to deduce nature from the essence of the Ego. Soon, however, he began to oppose mind and matter, and to regard the Ego as having first produced matter and later become conscious of itself in mind. He then viewed the various forms of organic life beneath man as successive stages in which this development takes place.

After Fichte left Jena in 1799, Schelling began to become more independent in his thinking, and from this point we date his second period. Nature and mind now become more sharply contrasted. There are two different sides of philosophy. All knowledge, to be sure, rests upon the agreement of a subject with an object, the union of the Ego, or intelligence, and nature. We may either study nature first, and show how mind arises in it ("philosophy of nature"); or we may take intelligence first and ask how objects proceed from it ("transcendental philosophy"). In his "philosophy of nature," Schelling attempts in an *a priori* manner to indicate the successive stages of an ascending evolution, without sufficient knowledge of science to make his account plausible, and to show that the later and higher species have actually descended from the earlier ones, as Lamarck was affirming and Darwin was later to establish. In his "transcendental philosophy" of idealism, he tries to portray the different stages of evolution as the development of the observing mind, and in imitation of Kant he distinguishes between

theoretical philosophy, practical philosophy, and the philosophy of art. Art is the highest of the three, because in the intuition of the artist the Ego beholds itself, and the teleology that hitherto had been hidden becomes revealed to the Ego. Here, of course, Schelling is the interpreter of the Romantic movement. God is no longer for him, as for Kant and largely for Fichte, a postulate necessary for the justification of moral faith; He has become the known object of the immediate intellectual intuition of the artist.

Schelling about 1802 passes into his third period, in which he shows the influence of Spinoza. Mind and matter are at bottom identical. Even what we suppose to be dead matter is only a sleeping world which the Absolute Identity (God) may raise to life. In knowledge, truth is the form of matter; in the good, form is given to matter; in beautiful works of art, the two are absolutely blended together in a higher synthesis. Schelling for a time tried to deduce this "philosophy of identity" by a mathematical method imitative of Spinoza; later he sought to work out a more immediate method of intellectual intuition called "construction," by which the Absolute is seen to be in all, and all in the Absolute; the whole is expressed in every relation and object. Schelling was as unable as Spinoza had been to make clear how an Absolute that is pure identity can be related to a world of diverse persons and things.

The ambiguities in Schelling's ever-changing philosophy led to his repudiation by Hegel, who had been his disciple and for whom he had secured a position as a colleague at Jena. Hegel stayed on at Jena after Schelling left for the university at Würzburg in 1803. Hegel appropriated various features in Schelling's view of the Absolute and its gradual development in nature and history, and worked them over into a more coherent and systematic account which he defended by a better logical method (the dialectic). In the *Phenomenology of Mind*, which Hegel published in 1807, he exposed the vagaries and inconsistencies in the philosophy

of Schelling in a manner logically justified, but discourteous and unkind. Whatever opinion the philosophical public of the time may have formed of Hegel as a gentleman, it was evident that he was a far more profound and systematic thinker than Schelling. Hegel soon superseded Schelling in influence, and remained the recognized leader of philosophical thought in Germany until his own death in 1831.

Schelling's philosophical development subsequent to his eclipse by Hegel needs to be noted only briefly. From about 1804 another period begins, in which his philosophy assumes a more mystical form. No longer regarding the Absolute and the universe as identical in the manner of Spinoza, Schelling now stresses the differences between the two, and thinks of the world as having broken away from the Absolute, somewhat in neo-Platonic fashion. The soul has fallen from the plane of intellectuality to that of sense, and must seek redemption and reunion with God. This is symbolized by the myths of Plato and the neo-Platonists, which he reinterprets in a Christian manner.

A fifth period may be distinguished beginning in 1809, after he had gone to Munich. At this time he passed under the influence of the German Christian mystic, Jacob Boehme. He now thinks of God as the primal Absolute Identity, who differentiates Himself into the world of particular beings and then returns to Himself in a higher unity as a result of this differentiation. Schelling seems now to think of God as "Life" subject to suffering and growth, and the world process as a slow advance gained by effort and struggle in which God participates. He seems almost to anticipate twentieth century conceptions of a finite God "in the making" and a "vital impulse" (*l'élan vital*).³ The final end of man is liberation from sin and return to God, to be accomplished through love and forgiveness. The different religions of the world are progressive stages in the revelation of God to man. So there is a certain truth even in the early mythology. The highest revelation is embodied in Christianity,

which has already passed through the successive stages of Catholicism and Protestantism corresponding to the apostles Peter and Paul, and is approaching the third and final stage, that of John.¹

Schelling had the satisfaction of being called to Berlin in 1841, to counteract the followers of Hegel, who after the death of Hegel ten years before had fallen out among themselves and were beginning to be viewed with disfavor. Schelling, however, was unable to regain the position of renown which he had lost thirty years before, and the philosophy of his last period made little impression. Looking back at Schelling historically, his earlier thought unquestionably was an essential connecting link between Fichte and Hegel, while some of his evolutionary ideas helped to prepare the way for Schopenhauer, Nietzsche, and Bergson.

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remarked, does not seem to be permitted any secrets which Hegel's reason is unable to penetrate. Yet Hegel seldom arouses the kind of antipathy which Fichte produces in some readers. Hegel never talks of himself; he sets before us dispassionately the processes of reason as he believes they really are, without displaying any personal prejudices or partialities. Admirers of Hegel believe on this day that he reached the ultimate in philosophical thinking: for the first time in history appeared an adequate statement of the "universal philosophy" toward which previous philosophers had been advancing all too slowly.³ While they admit and call attention to occasional mistakes in Hegel's formulation, they insist that his more important conclusions will remain for all time the final truth in philosophy. Hegelians in their way are tolerant and sympathetic, although somewhat patronizing; every other philosophy contains a considerable measure of truth and needs only to be supplemented and corrected in the full light of the Absolute or of the Idealism of the Hegelians.⁴

II. BASIC CONCEPTIONS

Hegel agrees with Fichte and Schelling that ultimate reality, or the universe, is an Absolute Mind or Spirit which passes through stages of development in time, and becomes conscious of itself in the human reason; yet this Absolute is timeless, eternal, an all-embracing and self-completed whole. Hegel professes to show by means of his logic method (which he calls *dialectic*) how everything is connected in principle with everything else and helps to constitute this whole. Hegel's method of reasoning is not *linear* like that of Descartes; he does not start with some simple proposition that cannot be doubted, and attempt to prove each successive step in his great argument in a mathematical way. His is rather an *implicative* system: each phase of the argument is shown to imply all the rest. This mutual interdependence of all details and the comprehensiveness of the

account in which everything is included without ambiguities or inconsistencies anywhere prove the truth of the system as a whole. A system in which all is explained in a clear and consistent manner must be true. For "the truth is the whole." The argument everywhere is rationalistic, for "the real is the rational" and "the rational is the real."

The Hegelian system is too elaborate to be traced in all its details in a single chapter. We can indicate here only some of the basic conceptions, the method of procedure, and some of the conclusions reached. Such a summary account cannot do justice to the comprehensiveness and profundity of the system, nor to valuable insights in various details which are praised by many who do not accept the system as a whole. To arrive at an adequate understanding of Hegel, it is necessary to read his own works in the light of the commentaries, many of which are excellent. (See References at the end of this chapter.)

One of Hegel's basic conceptions is that of *the relation of a whole to its parts*. Any part of a whole is what it is because of its relation to the system as a whole and to the other parts. This is perhaps most clearly seen in organisms. In any living being, each organ is what it is because it is part of a whole. No part can arise or survive unless it is sustained by the others and helps to sustain them. (This interpretation of organisms, which Hegel probably owed to Aristotle, to whom he was indebted in many ways, is in the main correct, although in a plant or animal there may be a few useless or even harmful parts like the vermiform appendix in man; such exceptions were overlooked by Hegel.) The conception of the relationship between parts and whole in an organism is extended by Hegel to all truth and reality. Every truth or fact is dependent upon, and helps in its turn to determine, every other truth or fact. This doctrine has come to be known since Hegel's time as *the organic theory of truth and reality* (since everything is internally determined by its relations to everything else) as opposed to the opposite doc-

trine of the "externality of relations" which we found in Locke (page 153 above).

It follows from this conception that *any organic whole is more than the mere mathematical sum of its parts*. This is obviously the case in the lives of plants and animals. A successful work of art is also an organic whole, in the Hegelian sense. You could not understand the meaning of a picture simply by analyzing the chemical constitution of the canvas and the different paints, although these are essential and the picture could not exist without them. Nor could you appreciate the painting by studying each figure entirely by itself. Each figure has an artistic relationship to the rest, it is part of a whole, and the true significance of this whole is more than a mere addition of the different parts. Yet the whole is not something separate from the parts, existing independently; it simply is these parts taken together in their unity. The whole *logically determines* the character of each of the parts. If a painter is successful, each detail in his picture makes its contribution to a whole which he has previously conceived. Reality, or the Absolute, is an infinite whole, consisting of finite parts, each of which contributes to the whole and is determined by it.

Let us approach Hegel's conception of the Absolute in another way. Take any particular instant in your conscious life,—say the present moment. Suppose it were isolated from all other moments—that you had no memory, no retention of anything that you had ever experienced before. Under such circumstances the sensations of the present moment would mean absolutely nothing to you. The present moment, in which you are trying to understand a feature of Hegel's philosophy, can have meaning to you only as it is organically related to what you have learned in past moments which throw light upon the present moment, while it gives added light to them. Throughout your entire conscious life each of your experiences is part of a whole which includes your past experiences, and prepares the way for those of your

future. Your personality is not what you are in any present instant, taken by itself; what you are is your life taken as an organic whole in Hegel's use of the term.⁵

But we cannot stop here. You are yourself interrelated with other persons in many ways. You have had a father and a mother; you owe your very existence to them, and in addition to traits inherited from them biologically you owe them an incalculable amount in other ways. Your various other relatives, teachers, playmates, and associates have influenced you and helped to make you what you have become. You are now, probably, a college student. As such you have many relations to other students—to your class, to whatever fraternity, clubs, athletic teams, and other student organizations you belong, as well as to various members of the faculty. You are looking forward after graduation to assuming relationships with countless other persons in a business or profession. Now then, what would you be, considered as an individual and sundered from all the other persons with whom you have been related in the past, are related now, and expect to be related in the future? You are constituted by, and help in your turn to constitute, other persons and groups of persons with whom you are in contact. Furthermore, you and all the other individuals composing the human race are related to the planet on which we live, and this earth of ours is conditioned by and in its turn helps to condition, every other heavenly body in the universe.

Let us stop and consider the conclusions at which we have now arrived. Each moment in your conscious experience is an organic part of your life as a whole. Your life as a whole is conditioned by human society. Human society is interrelated with the earth. The earth is an organic part of the entire universe. Each of us is an organic part of a universe which is made up of its constituent parts. These truths are realized by you and me—a statement which can be reversed to mean that the universe or the Absolute has in us become conscious of itself and its internal relationships; for we are

organic parts of it. We should not think of the Absolute as something which existed in time prior to the world and proceeded to create it; the Absolute *is* the world in its unity and completeness. The Absolute is not fixed somewhere in space and time; it includes all of space and time in its infinite and all-embracing thought. The Absolute has come to consciousness of itself in man; most completely so in the philosophy of Hegel. Since we are an organic part of the universe, we may be confident that the laws of our reason are the laws of the universe; for whatever is rational is real, and whatever is real is rational.

Whether and to what extent Hegel thought of the Absolute as self-conscious apart from men, late arrivals on the earth, is a disputed point on which dissensions arose after his death among his followers. The original interest in religion which first led Hegel into philosophy, as well as the sympathetic treatment which he gives to religion and especially to Christianity, suggest that he probably thought of the Absolute as a Mind or Spirit which is eternally perfect, and not dependent on human beings for knowledge of its own existence. Yet, according to Hegel and Hegelians, men have a very real responsibility in the universe as a whole, for only in them, so far as we know, have appeared finite minds which are able to reason and to arrive at an understanding of the world and of themselves. Hegelianism emphasizes the dignity and importance of men, and teaches them to respect themselves.

Hegel uses the terms *concrete* and *abstract* in a unique way. If you look at anything by itself, apart from its relationships, you are looking at it *abstractly*; if, on the contrary, you consider it in its organic relationships, you view it *concretely*. To tear a leaf from a tree and put it under a microscope is to look at it abstractly; to understand the leaf in its relationship to the life of the tree is to look at it more concretely; so far as microscopic examination assists one to understand the functions of the leaf in the life of the

tree, it of course contributes to more concrete understanding. To regard any separate instant of your experience by itself is very abstract; to view yourself as a member of society is more concrete. The terms abstract and concrete are of course relative. The most abstract conception possible is that of mere *being* apart from any further statement of the nature of such being; at the other extreme, only the Absolute is wholly concrete. A specific bit of information like "heavy things fall" is more abstract than the law of gravitation, which states a definite principle applicable to every bit of matter in the universe; on the other hand, any law of physics or science is abstract in comparison with philosophy, which unifies all knowledge in a coherent system. (Throughout the remainder of this chapter, the terms "abstract," "concrete," "abstraction," "abstractness," and "concreteness" will be employed in the Hegelian sense. In other chapters these terms are employed in the usual way, unless indication to the contrary is given.)

Hegel distinguishes between an *abstract* and a *concrete universal*. Take such a term as 'man' defined by ordinary formal logic; e.g., "man is the rational animal." Such a definition of man is abstract, for it omits all the qualities with respect to which men differ from one another. Any similar definition of 'animal' would be still more abstract and connote fewer qualities. On the other hand, Hegel claims that his logical categories are not abstract but concrete universals; i.e., they *include all specific differences within themselves*. The Absolute of Spinoza and Schelling (in his third period) is an abstract universal; it is mere Identity; one can only say of it that it is; all specific differences would be limitations and so have to be left out of it. This is why Hegel compares Spinoza's Absolute with the lion's den in Aesop's fable (page 102 above) and why he says Schelling's Absolute is like "the midnight in which all cows are black." Hegel's own Absolute, on the other hand, is wholly concrete; it is all reality comprehended within a whole, not something apart from

other things. Hegel attempted to show that each of his categories, which is a concrete universal, implies all of the others, including the Absolute, and that the Absolute includes all of them, in an organic system. Whether Hegel's claim is justified is a matter of dispute between the defenders and critics of Hegel down to our own time.

Hegel made much use of a dictum of Spinoza's, "*all determination is negation.*" You cannot define a term precisely and assert that it has certain properties without denying that it has other properties. If I say that Socrates is an Athenian, I at the same time deny that he is a Jew or a Roman. For Hegel this element of *negativity* is necessary in all reasoning. Everything is related to everything else, either positively or negatively. For negation itself is a form of relationship. The very qualities that define and limit Socrates as an Athenian exclude him from being a Jew or a Roman. Fichte saw the principle of negativity imperfectly when he made the Infinite Ego first posit the finite ego and then the non-ego in opposition to it. Fichte failed, however, to trace a logical connection between the finite ego and the non-ego. He should have shown that there is something in the very nature of the finite ego that negatively implies the non-ego, and he ought then to have proceeded further and brought the finite ego and non-ego together in a more concrete whole in which their mutual relationship would have been included. Hegel's dialectic shows that any thesis implies its antithesis, and that the two are united in a higher synthesis in which the opposition between the two is *aufgehoben*, that is, reconciled and overcome in a larger unity. (This word *aufgehoben*, of which Hegel makes much use, has no very satisfactory English equivalent; it is sometimes rendered as "sublated.")

Let us give a simple illustration of our own of the Hegelian dialectical method. Edwin M. Stanton was secretary of war in the cabinet of Abraham Lincoln. As a *thesis*, let us note the facts that he was a loyal and devoted servant of the Union, a tireless worker who often labored in his office eight-

een hours a day in times of crisis, that he was an extraordinarily able executive who handled the affairs of his department with an efficiency that could not have been matched in Lincoln's opinion by any other man he knew, and that, despite some mistakes, his efforts contributed much to the ultimate victory of the Union in the Civil War. As an *anti-thesis*, we find that Stanton was an extremely disagreeable man personally, who frequently lost his temper, bullied his subordinates, cringed before his superiors, and in other ways conspicuously lacked virtues usually thought essential in a good executive. He was far from being an ideal character. Now if some biographer could analyze Stanton's personality successfully—it has probably never been done—he would be able to show that from the very nature of Stanton's positive qualities in view of the whole situation in which he was placed, his negative qualities also had to develop—the *anti-thesis*—and that both positive and negative qualities were integral and mutually interdependent aspects of his personality as a whole—*synthesis*. Our present knowledge of Stanton enables us merely to point out the blank opposition of qualities, in the manner of Fichte. The future successful biographer of Stanton, if he ever appears, will be able to interpret him by the more adequate Hegelian method.

Like Berkeley, Hegel is an idealist. But his idealism is very different. Berkeley is a theist; God gives us the involuntary ideas that constitute our external world. God therefore creates the world, and has His own existence as an independent Spirit apart from His creation. We know all this by examining our empirically given ideas. So Berkeley is an empirical theistic idealist. Hegel, on the other hand, is a rationalistic pantheistic idealist. The Absolute *is* the world in its organic unity, *not* the creator of it. This is purely pantheism, although Hegel disliked the word, which in his day was usually employed to designate the reputedly crude pantheisms of India which regard the world as *Maya*, illusion, to which they oppose the Absolute. The Indians some-

times went on to characterize the Absolute as a blank unity of which nothing could definitely be said, while at other times they fancied that the Absolute is discoverable in a sacred cow, or even in drops of water and grains of sand. For Hegel the world is not Maya or illusion; it is real, although its various parts are dependent upon the unity of the whole. The whole is no blank unknowable unity; it is rational and knowable in its organic interrelatedness. If you were to start with any particular object, like a cow, or a drop of water, or a grain of sand, or Tennyson's "flower in the crannied wall," and trace its relationships with everything else in the world, you would arrive at a comprehension of the organic unity which is the Absolute. Spinoza's pantheism is more like Hegel than the pantheisms of India. Spinoza, according to Hegel, was right to a limited extent when he thought of the Absolute as Substance, for substance is one of its many categories; but the Absolute is far more than substance. It is better to speak of it as *Subject*, that is, as a unity which contains and reveals all the diverse contents of experience in a concrete whole. There is nothing in the Absolute that is not rational, thinkable, and knowable to the reflecting mind.

III. HEGEL'S SYSTEM IN GENERAL

THE ABSOLUTE IDEA (= all reality)	LOGIC (The Idea in-itself)	{ Being (Sein) Essence (Wesen) Notion (Begriff)
	NATURE (The Idea for-itself)	{ Mechanics. Physics. Organics.
	MIND, OR SPIRIT (Geist) (The Idea in-and-for- itself)	{ Subjective Mind (chiefly psychology) Objective Mind (law, morality, ethics) Absolute Mind (art, religion, philosophy)

The all-inclusive conception in Hegel's system is the *Absolute Idea*, often referred to briefly as the Absolute, or the Idea. (When used in this sense, the word Idea should always be spelled with an initial capital letter and prefixed by "the.") The Absolute Idea includes, or rather is, all reality or the universe. It may seem startling to be told that Hegel calls the whole universe the Idea; for we are likely to think of ideas as subjective creations of our own minds. Hegel of course does not think of the Idea in this way. Nothing is so real for him as the Idea. His view might be compared with Plato's conception of ideas to the extent that for Plato ideas are realities that human minds may discover but do not create; in many other respects Hegel's conception is quite different from Plato's. Suppose that we regard the principles of mathematics as ideas: these ideas were valid before any human mind ever happened to discover them; yet all mathematical principles are knowable, for there is nothing in the nature of any of them, discovered or as yet unknown, that will ultimately be impossible for a sufficiently trained mind to understand. For Hegel, reason, thought, the Idea, is knowable by human minds; for the structure of the world is harmonious with our minds which are organic parts of it; so it is well to call ultimate reality the Absolute Idea. This Absolute Idea is Spirit—the world soul—which thinks and is the categories, and which religion in a figurative way images as God. Believing firmly, as he does, that human reason can disclose the nature and processes of ultimate reality, Hegel uses in a new way dialectic (which Kant regarded as capable of furnishing only transcendental illusion), and finds in dialectic the key to absolute knowledge.

The Absolute Idea passes through a *dialectic* of many triads,—each of which has its own thesis, antithesis, and synthesis. In the thesis a certain aspect of reality is revealed, in the antithesis a contrasting aspect appears, and the two are then *aufgehoben* in a higher synthesis. This synthesis again

gives rise to a new triad, and that to another in turn. There are triads within triads, and still other triads within them. Every member of every triad is the Absolute. The Hegelian dialectic is thoroughly objective; we do not imagine it; it is the actual order which the thought of the Absolute follows. Hegel tries to prove this by a logical deduction of every member in the system from the preceding one. The dialectic begins with the most abstract conception of pure logic—that of mere being—and terminates with the most concrete phase of thought, the philosophy of the Absolute Mind in its full comprehensiveness and concreteness. The order of the dialectic is purely logical. However, events in time conform to it to a considerable extent, as Hegel attempts to show by illustrations from human history in the fields of politics, philosophy, art, and religion.

The most general triad has Logic as thesis, Nature as anti-thesis, and Mind or Spirit (as *Geist* is variously translated) as synthesis. The Absolute Idea *in itself* (*an sich*) as pure reason, apart from the world, is the categories of Logic. From these the Idea advances *for itself* (*für sich*), or as we are tempted to say, out of itself, into the external world of Nature, as revealed in the natural sciences. The Idea then returns to itself in a synthesis of Logic and Nature as Mind, and in human experience becomes self-conscious of its own activity.

IV. THE LOGIC

“Logic, for Hegel is the Absolute Idea in itself, before it becomes external nature.” (In statements of this kind, one must remember that “before” refers to *logical priority only*; Hegel does not mean that once upon a time the Absolute Idea existed only as the categories of the Logic and that it subsequently externalized itself in nature.) Each of the successive categories of Logic is the Absolute Idea in one of its phases. The order in which Hegel arranges the categories in-

A TABLE OF THE PRINCIPAL CATEGORIES
IN HEGEL'S LOGIC ⁶

Being (Sein)	Quality	{ Being { Being { Not Being { Becoming { Determinate Being { Being for Self
	Quantity	{ Pure Quantity { Quantum { Degree
	Measure	{ Specific Quantum { Measurelessness { Infinite of Measure
Essence (Wesen)	Essence as Ground of Existence Appearance	
	Actuality	{ Substance and Accident { Cause and Effect { Reciprocity
Notion (Begriff)	The Subjective Notion	{ Notion as Notion (Universal, particular, singular concepts) { The Judgment (various types in formal logic) { The Syllogism (various types of syllogisms)
	The Objective Notion	{ Mechanism { Chemism { Teleology
	The Idea	{ Life { Cognition { The Absolute Idea

dicates a progression from abstractness to concreteness; it is a purely logical classification and does not indicate a succession in time, for *all of the categories are eternal*. Each category as arranged in the series *implies* all those that follow it, and all of them can be logically deduced from it. Each category *explicitly* comprises within itself all those that precede it. Every category of the Logic applies to everything in the world.

For Hegel these categories are not the inventions of men, derived for human convenience, as William James and other pragmatists have subsequently asserted. Nor are they innate structures of the human understanding, untrue of the world as a thing in itself, as Kant supposed. Hegel believes that the categories are genuinely objective realities which he has discovered, and whose relationship to one another he has been able to state; they are the modes of divine and human and all rational thought. They are *a priori* for human experience because they are inherent in the structure of the universe. To this extent Hegel is a realist.

The most comprehensive triad of the Logic consists of the categories of Being (*Sein*), Essence (*Wesen*), and Notion (*Begriff*). In Being reality manifests itself most abstractly; in antithesis, in the categories of Essence the inner nature of thought is revealed as the outcome of reflection; the synthesis is the Notion or Concept (as *Begriff* is variously translated). In the Notion the opposition between Being and Essence is reconciled and overcome in a larger synthesis.

Being is the abstract external aspect of things, their most general characteristics, while Essence is their inner constitution. Take any particular object lying before you, say a stone. The stone is of course a physical object in the domain of Nature (as contrasted with Logic). Like every other object in Nature, the stone is an embodiment of all of the categories of Logic. One of the categories that is likely to come quickly to the mind when a person looks at a stone is that of *substance*; the stone consists of matter of some kind. We know

this only by reflection; for substance is one of the categories of Essence in Hegel's list, and a relatively concrete one at that. More abstract than the substance of the stone are its *qualities*, its *shape*, and the fact that it can be *measured*. These are, in Hegel's list, categories of Being, as opposed to Essence, for they are more abstract and immediate. Anything that can be measured must consist of parts that are *quantitatively* distinct. In other words, the category of Measure includes within itself and presupposes the category of Quantity. But whatever has quantity must consist of *qualities* which can be discriminated. So the category of Quantity includes and presupposes that of Quality. Therefore, as illustrated by a stone or any other object that you please, the categories of Being, in the order of diminishing abstractness and increasing concreteness, are those of Quality, Quantity, and Measure, each of which includes all those which precede it, and implies all which follow it, leading in due course to the categories of Essence, including that of substance.

Let us look more closely into the categories of Quality. The most abstract aspect of any quality is that it *is*, that it has *being*. That is the very least that can possibly be affirmed of anything that can be perceived or thought. It is a universal that is present in everything. It is evidently the most abstract of all universals. Now if all that you can say positively of anything is to apply to it the category of *Being*, you can say practically *Nothing* about it at all! What Hegel means here is not so subtle as his obscure language might lead one to suppose. With his love of paradoxes and antitheses, he is saying merely that if you assert that something is, that it has *being*, you are affirming the presence of some thus far undefined quality about which you as yet are ready to say *nothing* determinate. You further are asserting that something *is* that undefined quality and *is not* what is not that quality. So in different ways you are at the same time affirming that something *is*, and that this something which is, *is not* something else. So Not-Being or Nothing is the an-

tithesis of Being, and to affirm Being leads you at once to affirm its antithesis, Not-Being. Being implies a distinction from what is not, *i.e.*, Not-Being or Nothing, for all determination is negation.

Furthermore, if in your contemplation of anything you find that it is some as yet undefined quality, and so is not what is not that quality—what you perceive or think both *is* and *is not*—you are next led to the synthesis of Being (what is) and Not-Being (what is not), namely Becoming. For Becoming (change, transition) is the passing of something over into what previously it was not. Parmenides in the early history of Greek philosophy grasped the opposition between Being and Not-Being, so he dogmatically affirmed of the world that it is—“whatever is, is”; he also saw that Not-Being or Nothing is opposed to Being—that “what is not cannot be.” Unfortunately that is as far in the progress of the categories as Parmenides ever got, and he could find no place for change or Becoming. Heraclitus advanced a step further when he proclaimed that the world is a Becoming, an unceasing change, a passing from what formerly was to something which then it was not but has since become. Later on in Greek philosophy a synthesis of Being and Becoming was effected by the Atomists; each atom is an indestructible unit of being, while atoms constantly change in their combinations.

If the reader is convinced that Becoming is a purely logical synthesis of Being and Not-Being, and accordingly accepts this first deduction of categories by Hegel, he will be willing to agree to Hegel's method in principle. If, on the other hand, the reader thinks that the bare conceptions of Being and Not-Being, when opposed to one another, do not yield the further conception of change or Becoming as their synthesis, he will accuse Hegel of slipping in here a new conception which he knows only as a result of experience, and not as the result of a process of purely logical deduction. Such a reader will be disposed to reject the whole Hegelian

method of dialectic. It is clear enough that Hegel is right in believing that change involves something becoming what it previously was not. This is indisputable. But does the bare conception of Being, taken by itself, logically force you first to think of Not-Being and then to combine the two in Becoming, as Hegel claims?

The reader will have noticed in the Table of the Principal Categories inserted above, upon page 329, that Hegel uses the word Being to distinguish three different categories. Hegel did not find enough words in the German language to enable him to use a separate one for every category; but the context usually makes clear which he has in mind in any particular instance. At the other extreme from Being is the Absolute Idea, which in its concreteness includes all the other categories of Logic, while in the Philosophy of Mind the Absolute Idea is the final synthesis of all the preceding conceptions in the entire system. It must be remembered that the Absolute Idea is Being, is Becoming, is Quality, is Essence, is the Notion, is Nature, is Mind, in all their abstractness and in all their concreteness. Even in the most abstract category of Being, all the other categories are implied, and they can be deduced from it in the logical order of increasing concreteness. We have followed the first step in this dialectical progress, by which the category of Becoming has been deduced from Being, and we have hinted at the way in which Quality and Quantity are subsequently sublated into Measure.

By the time we are able to apply the categories of measurement, we are ready to advance from the external appearances of things to their inner structure, knowable to reflection, and so to the categories of Essence; or as we might say, we pass from superficial common sense to scientific analysis. Within the categories of Essence are included the triad of Actuality consisting of the categories of Substance, Causation, and Reciprocity, much as Kant conceived them (compare page 271 above). So long as we think in terms only of substance

and causation, the world seems to be determined by absolute *necessity*; but when we proceed to the category of Reciprocity, in which agents react upon and determine one another, we find that within the larger reciprocal whole all is mutually determined; such self-determination is *freedom* for the whole. So the category of Reciprocity leads us out of the region of scientific law and determination of everything by other things outside of itself, into that of the self-determination of a larger and more inclusive whole. But to arrive here is to pass beyond Essence to the Notion with its more concrete categories.

Let us try to illustrate Hegel's resolution of necessity into freedom in a way which may throw light upon his thought, although it will not do it full justice. Suppose that a physician sees people about him dying in an epidemic, say of typhoid fever. At this point he is helplessly buffeted about by the forces that are causing deaths, and he is unable to control them. To him the system is one of inevitable necessity; he is unable to prevent the spread of the epidemic. But suppose he later discovers the source of infection and checks it. The physician has now become free. He has himself become the directing agent in a system of events over which he previously had no control. *Freedom is necessity unveiled and understood.* Knowledge through the Notion is freedom. Let us now take two illustrations suggested by Hegel's own comments. A man who thinks of himself as a mere link in a chain of events feels determined; if, however, he identifies himself with the whole of reality or the Absolute, he is free; Hegel gives Spinoza credit for recognizing this in his conception of the intellectual love of God. A criminal who undergoes punishment feels constrained and determined from without; if, however, he comes to realize that his punishment has in reality been brought upon himself by his own misconduct, that it is the rebound from his own actions, he is free.⁷ Hegel is probably supposing that the criminal repents when he appreciates the logical connection between

his crime and its punishment, lives thereafter in accordance with the laws of society, and becomes a good citizen.

The third triad of the Logic deals with the Notion. (The German word is *Begriff*; it might perhaps better be rendered as Concept. The root meanings of both *Begriff* and Concept suggest thorough grasping and holding elements together in a system, so that their organic unity becomes evident.) In the Subjective Notion, the Absolute expresses itself in the universals of ordinary logic, reinterpreted by Hegel in order to render them concrete and to manifest their organic relationship. In a *singular* concept of an individual person or thing, the universal is seen to be present in a particular instance, and the particular instance is an exemplification of the universal. Socrates is a particular instance of the universal "man." "Man" is not an abstraction; it exists in particular men like Socrates, and these men in turn exist in it. This organic relationship between universals and individuals is made more explicit in *Judgments*, and it is further developed and proved in *Syllogisms*. Hegel believes that the syllogism is not an artificial device for stating arguments, but that it is real, the actual system of thought that constitutes the universe.

The Objective Notion embraces particular elements put together mechanically and chemically; but mechanics and chemistry, although real relations in the world, find their deeper meaning in *teleology*, for everything has its final purpose in the light of which it is to be understood, as Aristotle had already seen. The reality immanent in the acorn becomes manifest in the oak, and the development from acorn to oak is an immanent teleology which reveals the inward significance of the mechanical and chemical structures. The synthesis of the Subjective Notion (ordinary logic reinterpreted in the Hegelian manner) and the Objective Notion (the concrete significance of science) is effected in the category of the *Idea*, which includes the triad of Life (the world is a living Being), Cognition (the world becomes conscious of

itself), and the Absolute Idea (the world conscious of itself in its complete logical unity and completeness). The category of the Absolute Idea embraces explicitly within itself all the preceding categories, beginning with the most abstract, Being. These categories are now seen to constitute a perfect synthesis which is conscious of itself and free.

Hegel's insistence that thought and reality are identical leads to his affirmation of the *ontological* argument for the existence of God which Kant, who distinguished between thought and reality, rejected. For Hegel there is no reality except thought; so thought conscious of itself in the higher categories of course knows its own existence as the Absolute.⁸ Hegelians believe that Hegel was right in this, and that it is possible to rehabilitate the ontological argument. Most philosophers of other schools agree with Kant in rejecting it. Are thought and reality identical? Is reality itself a system of thought which knows itself as such in the Absolute? These are the questions in dispute.

V. PHILOSOPHY OF NATURE

In antithesis to *Logic*, in which the Absolute is pure thought, stands *Nature* in which the Absolute Spirit externalizes itself as the outer world. Hegel's purpose in his *Philosophy of Nature* is to show what universal *conceptions* underlie nature. These conceptions differ from the categories of *Logic* in the respect that not all of them are necessarily present in everything. There are universals in living organisms, for instance, which do not appear in inorganic matter. Hegel is not a pansychist.

The lowest and most abstract conceptions of Nature are the triad of space, time, and motion; which lead on to the other principles of Mechanics. These, of course, are present in all nature. In antithesis to Mechanics are the conceptions of Physics. Higher than these as a synthesis in the case of living beings, is Organics. A living organism is both mechan-

ical and physical in its constitution, but it is something more. Consciousness of a low degree appears in the animals. Man, however, has *self-consciousness*; he can reason, he possesses Mind or Spirit, in the Hegelian sense. So the Absolute Mind, which is in a world external to itself in nature, returns to itself in finite individuals which participate in its own rational thought. This brings Hegel to the third part of his system, the *Philosophy of Mind*.

It is not necessary to discuss Hegel's Philosophy of Nature at length. His admirers admit that this is the weakest part of his philosophy. His training and interests lay in such fields as logic, metaphysics, literature, theology, art, and human history. He had little scientific knowledge or aptitude. One man cannot excel in everything. Two observations, however, may be made before we leave this part of his system.

Hegel anticipated evolutionism to the extent that he attributed to nature a logical process from lower to higher forms; in order of increasing concreteness, space and time are followed by inorganic matter, plants, animals, and man. Such a logical succession would certainly seem to suggest a corresponding evolution in time, especially as Hegel attempted to find parallels between the successive steps in his Philosophy of Mind and events in human history. However, Hegel definitely rejected as "nebulous" the conception of the origin of the more highly developed animal organizations from the lower.⁹ He lived before Darwin, and Lamarck's interpretation of organic evolution had not been regarded with favor. While, therefore, it was left to Herbert Spencer to become the first modern philosopher to appreciate the significance of biological evolution, Hegel's doctrine of a logical order in nature helped to prepare the mind of Europe for the evolutionary philosophies of the latter half of the nineteenth century.

Hegel, like the Absolute Idealists who have been influenced by him in later times, was not hostile to the natural sciences, nor did he reject the mechanical interpretation of

nature as true within the range of scientific investigation where it is found adequate. Mechanism, however, is as abstract a conception in nature as it is in logic. Teleology is a more concrete conception. Any organism, for instance, has its mechanical structure, and is subject to the laws of physics and chemistry. However, descriptions in terms of these laws are not exhaustive. Within an organism, the relations of the various organs to one another constitute a whole which is more than the mere mechanical interaction of its parts, at least when studied philosophically. Its life carries out its own inward purpose. The whole of nature is governed by mechanical laws. But nature has a meaning profounder than a mere recital of such laws can disclose. That is what the Absolute Idealists mean when they insist that the world has a spiritual significance.

VI. THE PHILOSOPHY OF MIND

The third part of Hegel's system, the Philosophy of Mind, deals with the cultural experiences of mankind. The thesis of the principal triad, Subjective Mind, treats of psychology, the mental processes of individuals considered by themselves abstractly, apart from society. The antithesis to this is Objective Mind, in which the mind of man is found to gain freedom, concreteness, and objectivity in social relationships. Finally, in the synthesis of the triad, Absolute Mind, man becomes concretely conscious of himself as well as of the material and social world in which he lives, and through Art, Religion, and Philosophy he comes to appreciate his divine origin and destiny, as a manifestation of the Absolute Idea. While the order in which the different conceptions appear in the dialectic is purely logical, that of increasing concreteness, Hegel believes that the sequence of human events has to a considerable extent followed this order.

Hegel's psychology, with its strange subdivisions into what he calls anthropology and phenomenology, now seems antiquated. However, his insights are creditable for the time in

which he lived. For instance, he realizes that every stimulus and reaction is part of an organic whole, and that it is impossible to think of the soul as a separate substance in interaction with or parallel to the bodily processes, but that consciousness (or as some would now say, behavior) is a synthetic organization (integration) of bodily functions. He indicates with some measure of accuracy the order in which mental processes (or modes of behavior) have probably arisen.

Hegel's treatment of Objective Mind is regarded by some as the best part of his philosophy. The principal triad here consists of *Law* (*Recht*) in the sense of *abstract right*, (in which individuals are regarded in their external relations to one another and the consequent claims that they can make upon one another), personal *Morality* (*Moralität*), (in which individuals turn their thoughts inward and examine their consciences), and social *Ethics* (*Sittlichkeit*), (in which subjective rights and inward conscience become objectified in social *institutions* like the family and the state).

The general principle of *abstract right*, Hegel defines as "Be a person and respect others as persons." The thought is similar to that of Kant's second formulation of the categorical imperative (see pages 283, 284 above). Because a man, unlike an animal, is a person, self-conscious and free, with moral capacities, he is a bearer of rights and has corresponding obligations to himself and his fellows.

Right develops in the triad of *property*, *contract*, and *wrong* (torts, criminal law, etc.). Because a man is a person he has the right to *property*; this makes it possible for him to express his personality, by affording him the material means through which he can gain security for himself and his family and plan for the future, and so in a substantial way become free. The right implies recognition of the rights of other persons to their private property. Hegel's general treatment of property is individualistic; a man gains character by acquiring and managing property in a morally com-

mendable manner. At the same time, Hegel's views do not suggest obliviousness to the social injustices that now make it impossible for most persons to acquire private property of any consequence through their own efforts. The remedy along Hegelian lines would apparently not be extreme socialism or communism, which would abolish private property almost altogether, but rather a social order in which private ownership would become more general and better protected.

Two persons owning property have the right to engage in *contracts*, exchange and trade, by which they can transfer their property to their mutual advantage; they should respect each other as persons in such transactions, and act in good faith. Failure to do so is *wrong*; it may be *unpremeditated* and unintentional, in which case the offender is liable only to make *compensation* or restoration; it may be *fraud*, in which the offender professes to act with regard to right but does not do so and may be made to pay a *penalty*; or it may be *crime*, in which the offender openly violates the rights of others and deserves *punishment*.

Hegel does not regard punishment as primarily justifiable as a deterrent to future crimes, nor as a measure designed to reform the offender; to put the emphasis on either of these purposes is to fail to respect the criminal's own personality, and to treat him as if he were an animal or an inferior being.¹⁰ Punishment should be an expression of the social or general will embodied in the state, not of private parties who feel aggrieved. Hegel is usually interpreted to mean that punishments should educate the community, and if possible the offender himself, to realize that any crime as a matter of justice rebounds upon the wrong doer himself, who suffers the consequences of his conduct. He favored the movements in his own time for greater humanity in the treatment of offenders, and the restriction of capital punishment to a few major crimes.

The consideration of wrong doing, and especially of crime, leads us out of abstract right, concerned with outward things

like property, to moral responsibility and the inward mental processes of the agent. So *Morality* in distinction from abstract Right or *Law* to which it is the antithesis, and to *Ethics*, the synthesis of the triad, deals with subjective *purpose*, *intention*, and the attitude of a person's conscience, which distinguishes between *goodness* and *wickedness*. A person is morally responsible for his *purposes*, which include all consequences which he ought to be able to foresee before he performs an action, and only those. Of foreseen consequences, those that are essentially a part of the act, and are so willed, are the *intention*. The intention properly includes the well-being of the agent and of others. Hegel thinks it right for a man to include in his intention other goods besides the mere fulfilment of duty, but nothing that would be a violation of duty. A great man who performs important services to the world ought not to be reproached because his intention incidentally includes power, honor, and renown for himself. Hegel is not severe upon a man who steals a loaf of bread when necessary to do so in order to prolong life, which is more important than property. He approves the allowance to a bankrupt debtor of some of his implements, clothes, and other necessities at the expense of his creditors. On the other hand, a man cannot be excused from responsibility for great harm done to others because of his allegedly "good intentions" if he has failed to take seriously into account the evil consequences liable to follow from his rash action. As a man reflects inwardly upon his purposes and intentions, his *conscience* emerges, and he distinguishes between *goodness* and *wickedness*. To will what is rational and promotive of the general welfare is good, and to will what is detrimental thereto is wicked. It is true that for a person to act in accordance with the dictates of his own conscience is *morality*, in Hegel's use of the conception, and he reaffirms Kant's doctrine of autonomy. However, Hegel points out that a man's conscience may be mistaken. Men can gain freedom and rational knowledge of what is really good and

bad only in a well-organized society. More trustworthy than the conscience of a fanatic (as well as of what we call a "conscientious objector") is the reasoned *ethics* of society, embodied in institutions that are the product of the wisdom of the ages.

The synthesis of abstract Right and subjective Morality is effected in objective or social *Ethics* (*Sittlichkeit*). Within Ethics the principal triad is the Family, Civil Society, and the State. Hegel saw in the Family the original and basic social institution in which individuals attain freedom. Marriage is not adequately understood if it is regarded merely as a sexual relation, or a civil contract, or a union resulting from romantic love. It includes all these, of course; but more than these it is, or should be, an *ethical union* in which two individuals freely consent to become one person; each gives up selfish interests to enter into a larger life of mutual love and assistance, and common will and purposes. It is a social institution, of public concern to the community; so its entrance should be marked by a civil ceremony, and divorce should not be allowed at the caprice of either or both parties, but only on serious grounds determined by law. The husband as the head of the family should earn the living and provide for the needs of its members, and regard his property as their common possession. A husband and wife perceive in their children the objective realization of their love, which previously was only their subjective feeling for each other. They should rear children with discretion and understanding, exercising firmness while they are little, and respecting their full rights as independent persons when they reach full maturity and are ready to provide for themselves and establish families of their own. Hegel insists on the importance of the family as an ethical institution in opposition to the vagaries of the Romanticists who were likely to sympathize with casual unions and the irresponsibilities of free love.

In order to preserve the symmetry of the dialectic, Hegel had to find some antithesis to the Family, which he could

combine with it in the higher unity of the State. This he called *Civil Society* (*bürgerliche Gesellschaft*). As thesis within Civil Society, he designates the *system of wants* including what we should call the economic order, and comprising the agricultural, industrial, commercial, and governing classes. An individual should belong to the class to which he aspires provided he is suited for it; this should not be arbitrarily predetermined by birth (as in the caste system of India), nor decreed by the rulers (as in Plato's *Republic*). The antithesis is the *administration of justice* between individuals and classes through laws interpreted by the courts in language intelligible to the citizens. The synthesis includes the *police* who enforce the orders of the courts, and voluntary *corporations* which individuals should be free to organize to further their interests in a manner harmonious with the public welfare.

Hegel has the highest regard for the *State* as an ideal notion or conception, and as Ethics deals with the ideal, in the sense of what ought to be rather than with what is, he does not deserve to be reproached for praising the State more highly than any actually existing state has ever deserved. Hegel knew that actual states have many defects; yet he was optimistic enough to believe that even so they have been disfigurements of an ideal not wholly absent, just as the ugliest man, the criminal, the invalid, and the cripple are after all living men. It is only as a citizen of the state that the individual becomes wholly free and possesses rights that can be rationally defined and maintained. The state is more important than any individual. Yet it cannot be claimed that Hegel carried his organic theory of the state to the extremes of contemporary totalitarianism. The fully-developed state, Hegel declares to be a constitutional monarchy, with at its head a single individual who coördinates all its functions. The monarch, however, is not a despot; he acts on the advice of his ministers; he needs only to be the man who says " 'Yes,' and so puts his dot on the i." Apparently Hegel had in mind

a monarch with functions somewhat similar to those of an English king, a visible head in whose name the processes of government are carried on.

Beneath the monarch are the *executive* officers of the state and the *legislature*. Hegel does not believe in the American theory of complete division of executive and legislative functions, but prefers the British practice by which the ministers have seats in Parliament. He does not favor universal suffrage; the government should indeed carry out the rational will of the nation, but this cannot be ascertained by a popular election in which the ignorant masses cast their votes. The executive should lead and guide public opinion rather than be the passive instrument of the popular passions of the moment. Although Hegel did not mean to be unprogressive, we can readily see why his views on the whole were acceptable to the reactionary bureaucracy in control of Prussia after the Congress of Vienna, and it must be feared that he was altogether too willing to keep in good standing with the government. There is much in Hegel's views on the state that is valuable, and some of the best British thought on political philosophy owes its inspiration to him, as is instanced by the writings of Thomas Hill Green and Bernard Bosanquet. Hegel is, however, rather disappointing in his treatment of international law. He has no expectation that an international authority can ever be established, or perpetual peace assured.

In Hegel's interpretation of *universal history*, each state is expressive of an idea which unfolds itself in the development of a dominant people who lose their position of eminence after their mission has been fulfilled. The Absolute Idea manifests itself in this succession of dominant states. "The history of the world is the judgment of the world." In his *Philosophy of History*, he indicates what he thinks has been the contribution of each important people in history. This book is impressive for the enormous amount of entertaining information and misinformation that Hegel has gath-

ered together, and while his thought is often suggestive, the book upon the whole has tended to make historians skeptical of the competence of a philosopher to interpret history correctly. The book, however, is often recommended to beginners in the study of Hegel's philosophy because it is interesting reading, presents the dialectical method clearly, and abounds with illustrations.

We have now reviewed Hegel's account of the progress of the Absolute Idea: first, in itself as manifested in the categories of Logic; secondly, externalized for itself in physical nature; and, thirdly, become self-conscious in and for itself in the psychological processes of Subjective Mind, and revealed as Objective Mind in social institutions. The final culmination is reached in *Absolute Mind*, in which the whole of reality is apprehended in its organic unity and completeness. In Art, this is done through the medium of a sensuous form of some kind; in Religion, the unity of the human with the divine is experienced in worship; in Philosophy, the Absolute is disclosed in the conceptions of pure thought. There is a very close relationship between these three highest achievements of the Spirit, which complete the system.

In Art, reality (the Absolute) shines as *beauty* through a sensuous medium, which may be directly presented as in the cases of a statue, a building, or strains of music, or in sensuous imagery as in poetry. Beauty can hardly be discerned in a low phase of inanimate nature like a lump of iron, and only slightly more so in a mechanical system like the sun and the planets. Beauty becomes more evident in plants, in which the unity of the parts and whole are seen to be teleological, more so in animals, and still more in human beings. However, man creates more adequate forms of beauty than he finds already existing in the world about him. Art is superior to nature. (We may feel like protesting at this assertion, but Hegel's whole philosophical outlook leads him to affirm it.)

Since the purpose of Art is to reveal the inward significance of reality in sensuous forms, it is always a higher interpretation and not a slavish imitation of nature (as versus Plato in the *Republic*). Art purifies the emotions and it has moral significance (here Hegel agrees with Aristotle). The purpose of the artist should not be primarily instruction or edification, much less personal fame and pecuniary rewards. He should seek to convey an understanding of truth through sensuous forms which have their interest and value wholly in aesthetic appreciation for its own sake. This makes clear both the unique value of art and its ultimate limitations as compared with religion and philosophy.¹¹

Every work of art has two sides, its spiritual content and its material embodiment or form. In *symbolic* art, the material embodiment predominates; in *romantic* art, the spiritual content; in *classical* art, the two are equally balanced.

In *symbolic art*, the human mind is unable to express perfectly the spiritual content it tries to convey through the material embodiment, and it can only suggest its meaning by a symbol. Crude illustrations are found in the monstrous and distorted creations of ancient Hindu art, which, for instance, seek to suggest the greatness of the gods by multiplying their heads, arms, and legs. Egyptian art is more effective in its symbolism; the obelisks represent the rays of the sun, while the Sphinx impressively calls attention to the riddle of the universe. Symbolic art reaches its complete dissolution in the fable, the allegory, the parable, the descriptive and didactic poem, in none of which is the spiritual content truly expressed, but only hinted at by means of symbols.

In *classical art*, for which Hegel had high admiration, there is a harmonious balance between content and form. Here art is at its best, considered as art. The content is concrete and the form adequate to express it. The Greek gods are personal and individual beings like ourselves and the sculptors were able to represent them in an atmosphere of calm and immortal blessedness embodied in idealized

human forms that express perfectly what is meant. To be sure, Greek art was not wholly classical. The Greeks sometimes made use of symbolism; and in their poetry, especially in their dramas, they were often romantic. But the Greeks are most famous for their achievements in classical art, which they developed to the highest perfection, notably in sculpture and architecture.

In *romantic art*, the spiritual element predominates, and no sensuous form is wholly adequate for its expression. Chivalry, with its essential features of honor, love, and loyalty, and romantic love, with its recognition of the infinite worth of another person, are examples. No such themes are to be found in purely classical poetry, like that of Homer. Romantic art seeks to reveal the spirit, not merely in calm classical dignity and repose, nor in the exploits of heroes, but in its inward struggles, pains, and ultimate triumphs. The passion, death, and resurrection of Christ, and the triumphs of faith over suffering effected by the saints and martyrs, are among the favorite subjects of romantic painting, music, and poetry, as well as of Gothic architecture (which Hegel regards as romantic). Since no sensuous form can convey adequately such profound spiritual truths, the dialectic passes from Art to its antithesis in Religion. Hegel was keenly interested in the fine arts, and devoted much effort to an elaborate interpretation of their inward significance. He remains one of the outstanding thinkers in the history of aesthetics, and many who are not disposed to accept his philosophy of art as a whole credit him with valuable insights.

Religion occupies a position intermediate between Art and Philosophy. The Absolute Idea is no longer manifested in the form of an object of sense, but it is not yet understood in purely rational conceptions. The content of Religion is representation (*Vorstellung*), in which pure thought is clothed in imagery of some kind. The popular idea of the creation of the world by God is such a representation. The

philosophical truth in this representation is the transition from Logic, the Idea in itself, to Nature, the Idea in its externality. Hegel does not reject the representations of religion as mere popular delusions. He sees in them actual revelations of the Absolute, which express truth as adequately as the popular mind has been able to grasp it.

Hegel finds in Christianity, which he calls the Absolute religion, the most adequate representation of truth that is possible for a religion. God the Father is Logic, the categories before they become externalized in the world; God the Son is the world of Nature; the Holy Spirit is reality become selfconscious in Mind, and is present in the Church. The doctrine of the Trinity expresses in the form of a representation the truth that the Absolute is three in one; for the logical categories, nature, and mind are together the one Absolute in its threefold aspect. Man when in isolation from the Absolute feels his limitations and becomes conscious of sin; through the representation of the Incarnation he finds that the Absolute as Nature (the Son) has become man, and through worship he gains consciousness of union with God. The great value of the Christian religion is that its representations correspond to the eternal truths of (Hegel's) philosophy. We need not concern ourselves about the historical accuracy of miracles or other events supposed to have happened eighteen centuries ago; whatever historians may eventually decide about them, these eternal truths will remain. Hegel's attempts to show that Christianity is a popular representation of the more ultimate truths of his own philosophy naturally appealed to clergymen and others who wished to become Hegelians and yet remain Christians.

The various other historic religions Hegel studied sympathetically, and he gave each of them credit for interpreting more or less adequately some phase in the progress of the dialectic. He studied the literature of comparative religion then available, and he is probably as accurate in his references to the different religions as was then possible. Hegel

took religion seriously, ranked it higher in his system than any other form of knowledge except philosophy itself. He believed that it occupies an essential place in human life, and was convinced that through it man comes into contact with the divine.

The final synthesis in Hegel's system is *Philosophy*. Through Philosophy man discovers the Absolute in all the stages of the dialectic. In so doing, man becomes rational and selfconscious. He appreciates his own position in a universe that is organic and rational. And the universe in turn becomes conscious of itself in the cultural life of man. Hegel's system remains the most comprehensive philosophy that has been achieved in modern times.

VII. THE SUCCESSORS OF HEGEL

After the death of Hegel, differences arose almost immediately among his followers as to whether or not the Absolute has self-consciousness apart from its manifestation in human minds, whether or not God is incarnate in Jesus Christ in any sense different from that in which He is present in all men, whether men have personal immortality as individuals or only Absolute Mind is immortal, and like questions, chiefly in the field of religion. The conservatives—"the Hegelian Right"—defended the more orthodox of these alternatives and insisted that Christianity and Hegelian philosophy are in essential agreement and afford each other mutual confirmation. The radical wing—the "Hegelian Left" or "Young Hegelians"—took the opposite positions. Since in the Hegelian system Nature logically precedes the human mind, the Left were disposed to view man as a product of nature, and they drifted more or less in the directions of materialism and atheism.

David Friedrich Strauss (1808–1874) in his famous *Life of Jesus* (1835), sensational at the time, maintained that it is unnecessary to assume that events recorded in the Gospels.

are either literal history or deliberate fictions (the only alternatives usually considered theretofore), but that many of them are myths, unconscious poetry. His influence did much to initiate the German "higher criticism" of the Bible. Ludwig Feuerbach (1804-1872) went further and attempted to trace the psychological origin of religious doctrines in human hopes, fears, and aspirations. God is a beautiful idealization of human wishes. Feuerbach's views tended in the direction of materialism, although he was reluctant to regard man as wholly a product of matter.

Karl Marx (1818-1883), the founder of "scientific socialism," came into contact with Hegelianism through the study of Feuerbach. Marx was still more radical. He unqualifiedly rejected religion, which he regarded as harmful, since it leads men to believe that their aspirations will ultimately be realized in another world by a supernatural agency, and so reconciles them to capitalistic exploitation in this life; "religion is the opium of the people." Marx appropriated the Hegelian method of dialectic, but instead of using it in the idealistic manner as an evolution of thoughts or conceptions, he interpreted it as a development of material forces—"dialectical materialism." Economic and material forces are the underlying causes of human events—the "economic" or "materialistic interpretation of history." A dominant class has always ruled the state in accordance with its own interests, and exploited other classes. By an immanent dialectic, primitive communism gave way in succession to slavery, feudalism, and capitalism, and the latter will presently be overthrown by the working classes who will establish "the dictatorship of the proletariat." This last will in turn be transformed into a "classless society" in which wealth will be owned in common and be distributed to individuals in accordance with their needs (communism).

The majority of German philosophers in the nineteenth century who were influenced by Hegel were more constructive, although less sensational, in their thinking than the

extreme members of the Hegelian Left. Among these were many of the best authorities on the history of philosophy (J. E. Erdmann, E. Zeller, Kuno Fischer, F. K. A. Schwegeler, W. Windelband), theologians (A. E. Biedermann and Otto Pfleiderer), and philosophers of law (A. Lasson, Joseph Kohler). The persistence of German interest in Hegel was manifested by the publication of two new editions of his complete works at about the time of the centennial of his death (1931), edited by Georg Lasson and Hermann Glockner.

Hegelianism in modified forms, known usually as Neo-Hegelianism or Absolute Idealism, spread to Great Britain and America after about the middle of the nineteenth century, and was the dominant philosophy until the second decade of the twentieth century, since when it has had to compete with the new realism, pragmatism, neo-positivism, and other movements which have proved formidable rivals. Among the famous British philosophers of this period who were considerably influenced by Hegel were Edward and John Caird, Thomas Hill Green, Francis Herbert Bradley, Bernard Bosanquet, James Seth, and Andrew Seth Pringle-Pattison. Among the Americans were W. T. Harris, George Sylvester Morris, Josiah Royce, George Herbert Palmer, and James Edwin Creighton. An important Canadian representative of the Neo-Hegelian movement was John Watson. Among the Italians who have been influenced by Hegel, Benedetto Croce and Giovanni Gentile are best known outside of their own country. Hegel has probably been less influential in France, but Octave Hamelin in some respects shows his influence.

At the present time there are comparatively few philosophers who would be willing to be denominated Hegelians or Neo-Hegelians. However, many contemporary philosophers of eminence show his influence in one way or another. Samuel Alexander, Alfred North Whitehead,¹² and John Dewey will serve as illustrations. Hegel continues to be studied as one of the most important modern philosophers.

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PART IV
RECENT PERIOD

CHAPTER XV

SCHOPENHAUER

I. THE PERIOD

Many philosophers since Hegel have attacked the perennial problems in the light of fresh experience. They are of interest to us because in comparison with earlier philosophers they look at the world more from our point of view, and speak in familiar language. Their thought has been appreciably influenced by two sets of circumstances,—the many brilliant discoveries in the natural sciences and the sweeping changes in social life following industrial and political revolutions. These have called for reconstruction of philosophical standpoints.

To be sure, the philosophers of the period have not been in complete agreement as to how much significance for philosophy itself should be attached to the new achievements in science. In the more exact sciences, such as mathematics, physics, chemistry, and even to some extent biology, progress has largely consisted of more exact quantitative measurements; while these may perhaps furnish suggestions regarding the ultimate nature of what is measured, they are by no means decisive. Moreover, some hypotheses that might have been significant for philosophy if they had really been established in science kept changing almost every decade, or even oftener. So some philosophers, notably among the idealists, while not disposed to question the authority of the scientists in their own fields, have claimed that the ultimate questions regarding the nature of reality lie outside of the scope of scientific inquiry, and must continue to be studied by the methods of the earlier philosophers, improved, of course,

and adapted to the thought and life of the new age. At the other extreme have been philosophers—the more extreme positivists, pragmatists and realists—who have thought that the only trustworthy methods of investigation are those of scientific research; what cannot be known by such methods cannot be known at all; metaphysics is impossible; the business of the philosopher is to study and describe the methods of the sciences and to employ them in fields like logic and ethics that still remain within the domain of philosophy. Somewhat bolder than the type of philosophers just referred to, have been thinkers like Comte and Spencer, who have tried to classify the sciences and to advance to broader syntheses of knowledge than a laboratory scientist would be likely to attempt. Still others—James, Bergson, and many realists—have thought that it is the business of the philosopher to make the achievements of science his point of departure but not his stopping point; in the light of suggestions from the sciences, as well as from other aspects of experience, the philosopher may propose speculations about the ultimate nature of the universe and the place in it occupied by man.

The great social and economic changes of the nineteenth century have impressed many philosophers, who have looked forward with eagerness to the inauguration of a better life for mankind. The pioneer work of philosophers of this type did much to effect the establishment of a new group of sciences concerned with social problems, and during the course of the period economics, political science, sociology, psychology, and education have become independent disciplines, detached from philosophy.

The selection of philosophers of the period for discussion in this volume has been difficult, since as yet there is little agreement as to which of them will permanently prove to be of most importance. Those have been chosen whose points of view are novel and distinctive, and most likely to be of interest to the readers of this book.

Schopenhauer and Nietzsche among the Germans; Comte and Bergson among the French; Mill, Spencer, and Alexander among the British; and Royce, James, and Dewey among the Americans furnish at least a variety of fresh and stimulating insights into the world and human life. All have been thinkers of great influence. Studied in combination, they should afford a fair impression of the diversity, suggestiveness, extravagance, restraint, constructiveness, and limitations of the thought of the period.

II. LIFE AND PERSONALITY OF SCHOPENHAUER

Arthur Schopenhauer (1788-1860) was the son of a wealthy banker in Danzig, who, after this previously free city was deprived of its ancient rights by Prussia, removed in 1793 to Hamburg. The father seems to have been a wise man, who sought to give his son every educational opportunity. He made it possible for him to visit England and France and to learn their languages and something of their culture, although he hoped that his son would ultimately go into business. However, after his father's death in 1809, Arthur Schopenhauer decided upon a scholarly career. He became proficient in Greek, Latin, and Italian, and made a special study of Plato and Kant. He probably was better read in ancient and modern European philosophy than any German philosopher before him had been, and he gained some acquaintance with the philosophy of India through reading translations in modern European languages.

His doctoral dissertation, *The Four Fold Root of Sufficient Reason*, originally published in 1813 and afterward revised, Schopenhauer always regarded as the necessary introduction to his system. His chief book, *The World as Will and Idea*, appeared in 1818. Neither work attracted much attention for a long time. He was unsuccessful in interesting students when he lectured at the University of Berlin for some years after 1820. Having sufficient private means to support him-

self in a modest way, and never marrying, he probably did not make as serious an effort to succeed as a teacher as he otherwise would have done. Alarmed by the cholera epidemic in Berlin in 1831, which brought death to Hegel, Schopenhauer withdrew to Frankfort on the Main, where he resided most of the remainder of his life. After the liberals in Germany became discouraged subsequent to the failure of the revolution of 1848 and were ready for pessimism, Schopenhauer's occasional essays of a popular character came into favor, especially among general readers who were not professional philosophers, and the more earnest of his admirers studied his more serious books. At last he won a measure of fame, which brightened the closing years of a lonely and theretofore embittered life.

It is not easy to analyze the character and personality of Schopenhauer. It is said that there had been cases of insanity in both his father's and his mother's families, and his father is thought by some to have committed suicide. Schopenhauer may have been of a somewhat morbid and neurotic type. After his father's death his mother, who was a successful writer of popular essays and novels, and an active participant in the Romantic movement, kept a kind of salon and was surrounded by admiring men younger than herself. Schopenhauer quarreled bitterly with her over her manner of living and for other reasons, and never saw her during the last twenty-four years of her life. He was ill-mannered and egotistical, and made few friends. When, as a young and unknown philosopher, he began teaching at the University of Berlin, he set the hours for his lectures at the same time as Hegel's, although the latter was at the height of his glory. Schopenhauer was disgruntled because his own lectures were little attended in consequence.

He once brutally knocked down and injured a seamstress who lived at the same lodging house because she annoyed him by making a slight disturbance in the hall, and the courts forced him to pay her heavy damages. On the other

hand, it is claimed by his admirers that he was sickened at the sight of the suffering of human beings and animals and was really kindhearted, although gruff in showing it. It is alleged that it was the sight of the great distress of the poor in central Europe during the economic depression subsequent to the Napoleonic wars that made him a pessimist; he has even been compared with Buddha, whose compassion for suffering led him to pessimism and the proclamation of a way of escape from existence into Nirvana.

Schopenhauer is said to have been a man of strong sensual impulses which he could not control; these drove him into a succession of irregular amours of which he was ashamed, and which made it impossible for him to become permanently attached to a good woman in honorable marriage; they explain his praise of celibacy, his queer metaphysics of sex and his diatribes against women. He is said to have become greatly relieved when old age delivered him from the temptations of the flesh.

Whatever significance ought to be attached to such facts or gossip, whichever they may be, it must be conceded that the *Four Fold Root of the Sufficient Reason* and *The World as Will and Idea* are carefully reasoned books, brilliant in thought and style, and that, to however limited an extent one may be willing to accept his conclusions, his sanity and philosophical genius are beyond question.

III. BASIC CONCEPTIONS

Schopenhauer is probably most widely known because of his pessimism, but he is really more important on account of his version of idealism, including his doctrine of the will and his theory of the sufficient reason, his interpretation of art in connection with the Platonic Ideas, and his ethics of sympathy including his treatment of justice and benevolence. It will be the purpose of this section to mention some of Schopenhauer's basic conceptions in a preliminary way, leav-

ing explanations and criticisms to the remainder of the chapter.

Schopenhauer thought that Berkeley was right when, in opposition to Locke, he denied that any material substratum or substance serves as the support or cause of the ideas which we perceive. An idea can be like nothing but another idea; we have no reason to believe that anything exists but ideas and the minds that know them; the world is purely mental in its constitution. As Schopenhauer is fond of saying, there can be "no object without a subject"; that is, no external thing like a physical object can exist without a subject mind that perceives it. Schopenhauer is a thorough going subjective idealist or mentalist.¹

Like Kant, Schopenhauer affirms that the organization of sensations into the objects of perception is due to the *a priori* forms which the mind imposes upon sensations. Kant, however, drew up only a somewhat miscellaneous list of such *a priori* forms including space and time and the twelve categories of the understanding; he did not adequately explain the relationship between them, and he did not trace their common derivation back to a single principle.² Fichte tried to find such a principle in the Ego, but in Schopenhauer's opinion he failed to do so. Schopenhauer believes that he himself has been successful: the common principle is that of *sufficient reason*, with its *fourfold root*: (1) *cause and effect*, every change implies a cause, making natural science possible; (2) *ground and consequent*, the grounds on which logical judgments are based and inferences drawn; (3) *space and time*, making mathematics possible; and (4) *motive and action*, every action is the outcome of an assignable motive (this apparently is what makes social sciences possible). Every object that appears and every event that occurs in human experience are subject to the law of the sufficient reason and are determined in accordance with universal and *a priori* laws. This is the explanation of the uniformity of nature and the validity of the laws of science. Human conduct is as

subject to law as external events; Schopenhauer is as thorough a determinist as Kant in respect to the domain of human experience subject to the principles of space, time, and causation.³

Schopenhauer further follows Kant in believing that the world of human experience described by the sciences and subject to the laws of space, time, and causality is not ultimate reality; it is only a world of phenomena, of appearances, or as Schopenhauer says, a show world. It arises from the depths of something transcendent, the thing in itself. Kant thought it impossible to say anything very definite about the thing in itself; he only speculated about it, using moral postulates and aesthetic analogies. Schopenhauer, on the contrary, claims that he has been able to advance beyond Kant and to discover the real nature of the thing in itself. This he has not done by mere reasoning, which can proceed only in accordance with the principle of sufficient reason and produce the show world of our experience. But through *immediate intuition* Schopenhauer believes that he has penetrated the veil of phenomena and found the thing in itself. The thing in itself is *will*. *Ultimate reality is will*.

By *will*, Schopenhauer means to include not only consciously reasoned volition, but also all subconscious and unconscious inward impulses and desires, the whole striving and conative side of nature. Conceiving will in this broad sense, proceed to examine yourself. You discover that all your thought and action is prompted by impulse, by will. For if you had no desires you would never take the trouble to perceive anything, nor to think about it, nor act with reference to it. You are primarily a creature of will. This truth you discover by direct intuition or introspection. You are immediately aware of your own will, not by the medium of ideas, but through direct insight, by what Berkeley would call a notion. You infer a like will in other persons because of their similarity to yourself. Moreover, if you remember that will includes blind striving as well as conscious desires,

you also infer that will is the ultimate reality in animals, in plants, and even in inorganic nature. Now recall that for Schopenhauer the whole external world is the production of mind. But, as we have seen, all mind is at bottom a manifestation of will. This universal will is not, of course, that of you and me as separate individuals. The universal will has individuated or differentiated itself into you and me and the other separate persons and things of our phenomenal world in accordance with the principle of sufficient reason. Primarily, and prior to such individuation, the universal will is single and unitary. It is also *free*; because there is nothing by which it could be determined. Separate individuals are secondary, derivative, and determined. In the world will we are all really identical with one another and with the whole of nature.

Prior to the emergence of *ideas* (*Vorstellungen*, by some writers translated as "representations"), *i.e.*, the objects of perception, the individual things and events in time and space, the universal will has affirmed the *Ideas* (*Ideen*, in this chapter spelled with an initial capital letter in contrast to the *ideas* just mentioned). Following Plato, Schopenhauer believes the Ideas or universals include all genera and species, class concepts, universal qualities and principles. These Ideas are unending and timeless; all individuals are copies of them, or participate in them in some way. Individual men are merely instances of the species man; individual men are born and die and change continually, while the species man endures. The same contrast holds between all enduring Ideas and the changing particular ideas that for a time exemplify them.

First, then, in the order of being, for Schopenhauer, is the universal will. Secondly come the unchanging Ideas. Thirdly, the universal will individuates itself into the particular ideas (persons, things) which exemplify the Ideas in accordance with the principle of sufficient reason.

Schopenhauer's version of idealism is now seen to be

voluntaristic; for the will is the primary reality, instead of the reason as with Hegel. There have been many systems of voluntaristic idealism. Some such systems have been *optimistic*; the world will has decreed all for the best; all proceeds in accordance with a universal plan which is gradually being revealed in nature and ourselves. Thus viewed, Leibniz' philosophy might be called an optimistic system of voluntaristic idealism. Fichte's idealism is on the whole both optimistic and voluntaristic. Again there have been philosophers,—not in all cases idealists, to be sure,—who have put more emphasis upon the will than upon the intellect, and so are voluntarists, and who have affirmed that though the world is not perfect either for us or for the universal will, it is possible for us to help to make it better, and human effort should be directed toward that end. Such philosophers are called *meliorists* (from *melior*, better); James and Bergson are illustrations. There is nothing in the nature of voluntaristic idealism that necessarily implies pessimism. It would be possible for all that has been thus far said of Schopenhauer in this section to be combined with either an optimistic or a melioristic interpretation of the world and man's place in it. Schopenhauer's pessimism, though not inconsistent with his voluntaristic idealism, is not necessarily implied in it.

Schopenhauer bases his pessimistic conclusions partly upon his analysis of the nature of desire in its relation to happiness, and partly on empirical evidence. A desire, he claims, arises only when some want or deficiency, that is, some pain, is already felt. If the desire is satisfied, as a result of effort, the *best* that can happen is that the pain will be removed and the person will be no worse off than before he had the desire, except that he will be likely to feel a little *ennui*, or boredom. There is nothing positive about pleasure or happiness; these only connote the satisfaction of desires by the removal of pains. Once a man's hunger and thirst are satisfied, he can feel no more pleasure in eating and drinking.

The same is true of every sensuous and intellectual desire. Constant satisfaction of desires brings perpetual boredom. On the other hand, more often than otherwise desires are *not* satisfied, and the pain of unceasing desire continues. So much for Schopenhauer's analysis of desire. By way of empirical evidence, Schopenhauer points out innumerable instances of calamities and horrors of all kinds, that, as he believes, show that human misery far outweighs human happiness. This is the worst of possible worlds; if frustration were more frequent than it now is, humanity would not survive at all.

Temporary relief from the constant striving and pain of desire can be found in contemplation of the beautiful and sublime in nature and in art. During such experiences we forget our individual selves and our own desires, and become absorbed in the timeless Platonic Ideas. Greater relief is gained through morality. Following Hume and Adam Smith, Schopenhauer believes that the basis of morality is sympathy; in sympathy we identify ourselves with others and forget for the time our selfish desires, and lose the painful sense of individuality. This is true to some extent in all acts of justice; it is still more true in benevolence, that is, Christian charity and Buddhistic love.

More effective still than either aesthetic or moral attitudes is religion, or, perhaps some would prefer to say, Schopenhauer's substitute for religion, which he calls "*the denial of the will to live*." This, he thinks, has been practised by Buddhist and Christian saints, and to some extent by mystics in other religions. The denial of the will to live is facilitated by ascetic practices like fasting, scourging, and celibacy. If the will to live, with its egoistic and individualistic desires, can be completely eradicated from a person's mind, he enters into a state of blessedness, into what the Buddhists call Nirvana. About Nirvana nothing positive can be said; since all pleasures we know are merely negative eliminations of pain, but Nirvana is highly superior to any

state which those who have not experienced it can imagine. Schopenhauer knew himself to be no saint; he was well aware that he had never personally experienced such a state of blessedness, and so he could only wistfully call attention to the testimony of the mystics whom he believed to have attained or at least approached it.

IV. THE FOUR FOLD ROOT OF THE SUFFICIENT REASON

All knowledge (apart from immediate intuition) follows two laws, those of homogeneity and specification. The former bids us attend to the points of resemblance between things, and to classify them in species, and these species into larger classes or genera, until we arrive at the highest concept which embraces them all. This first law has been frequently recognized since Plato. Kant saw the equal importance of the law of specification, which commands that no species be overlooked, and that each must be assigned its proper place. But even Kant did not handle this second principle adequately. These two laws combined insist that *nothing exists without a sufficient reason for its existence*. This is a transcendental, a universal and necessary law of all knowledge. It is the task of philosophy and science to discover a sufficient reason for everything. This principle of sufficient reason cannot be demonstrated and indeed it does not need demonstration. For it is a self-evident proposition that is presupposed in all thought.

All our ideas stand in logical relationship with one another; nothing can be known which is wholly separated from other things. The relations which constitute the principle of sufficient reason fall in *four classes*, and so are denominated its "fourfold root."

The *first class of objects* are subject to the law of sufficient reason of *becoming or change*; every change implies a cause, which it regularly follows as its effect. Such changes are possible only because objects are capable of being perceived

under the *a priori* forms of space and time, which respectively make coexistence and succession possible; for any change obviously implies things that coexist in space in a certain way at one time and in a different way at a succeeding time. In his discussion of causation, Schopenhauer makes a distinction which materialists overlook. There is not merely one form of causation, but three. First, there is *causation proper*, in the narrow sense of the physical sciences, in which action and reaction are equal and quantitatively measurable; secondly, there is causation as *stimulus*, in the life of plants and in the purely organic processes of animals; and thirdly, there is causation in the sense of *motive* in every animal and human action that is in any sense conscious. All three are instances of the principle that no change occurs without a sufficient reason, yet the three differ from one another in important respects; for instance, in the latter two there is no quantitatively measurable equivalence between cause and effect. Between conscious volition induced by a motive and bodily processes, there is no interaction such as Descartes supposed; the two are at bottom identical, and appear different only because they are regarded in different ways. Here Schopenhauer is a parallelist, or rather, a believer in the *identity theory* of the relation between mind and body, like Spinoza.

The *second class of objects*, concepts and percepts, are subject to the law of sufficient reason of *knowing* (*Erkennen*), which affirms that if a judgment afford knowledge, there must be a satisfactory ground therefor, which assures its truth. This truth may be *formal*, as in syllogisms; or *material*, based on sense observation; or *transcendental*, based on *a priori* principles; or *metalogical*, based on the traditional "laws of thought"; *viz.*, that of identity (a subject is equal to the sum of its predicates), of contradiction (a subject cannot have a given predicate at once affirmed and denied of it), of excluded middle (of two contradictory predicates one must belong to every subject), of sufficient reason,

(in the sense that every judgment must have a ground for its truth lying outside of itself).

The *third class of objects*, subject to the law of sufficient reason of *being*, are those of mathematics, notably of geometry, which deals with positions in space in three dimensions, and of arithmetic, which treats with succession in time in one dimension. Schopenhauer agrees with Kant in claiming that space and time are *a priori* forms presupposed in every perception, which the mind imposes upon sensations.

The *fourth class of objects* are subject to the law of sufficient reason of *action*: preceding every act there is a motive that determines it. Believing in the identity of mental and bodily processes, Schopenhauer insists that every conscious human action has its physical correlate, and that the two are one and the same viewed from within and from without. When I raise my arm, if I regard the action from within, it is induced by a motive; if I look at it from without, it is a physical act with a physical cause. The inward view is, however, the profounder; it gives us a glimpse of the underlying will that is the ultimate reality back of all that is, and all that occurs.

All knowledge—other than intuition of the will, which Schopenhauer does not call knowledge in this sense—is subject to the principle of sufficient reason and comes under one of the four classes just mentioned. The principle always holds; nothing is or occurs without a sufficient reason knowable by thought. Yet more ultimate than knowledge subject to the principle of sufficient reason is the will, the thing in itself knowable only by intuition and inexplicable by the principle of sufficient reason. And no knowledge would ever be attained if it were not for the will, which desires to know in order that it may carry its motives into actions. Schopenhauer adapts Hume's claim that the reason is the slave of the passions to his own doctrine of the will.

V. THE WORLD AS IDEA

In the first book of *The World as Will and Idea*, Schopenhauer begins by asserting that "the world is my idea" is a truth of which only man is fully conscious and able to state abstractly, although it holds for everything that lives and knows. The world that lies before a man exists only as an idea in relation to his mind. This is true of the body of a man, as well as of all external objects; his body exists only in relation to himself, the subject who perceives it; it exists organized in the forms of space and time and causation which are given to it by his mind. All matter is merely the idea of the knowing subject; it has no existence except as such.

The objective world, the world as idea, is merely the outward side of the real world whose inmost kernel is the will as thing in itself. This outward world the materialist mistakes for the real world, and falsely imagines that the knowing self and the will are products of matter, instead of rightly understanding that the outward world is merely an idea in relation to a self that likewise owes its own origin to the will.

We shall be convinced of all this if we look critically into the constituents of the outer world. Look at time; all that occurs in the outer world goes on in time; but time is nothing but succession. Look at space; it is nothing but the possibility of the reciprocal determination of parts of one another in their respective positions. Both time and space can be thought apart from matter, while matter cannot be thought apart from them; they are clearly, as the certainty of mathematics shows, the forms which the mind gives *a priori* to all the contents of perception which constitute the outer world. Matter is nothing but causation; its true meaning is its action, for only as active does it fill space and time; the consequence of the action of any material object upon any other is discernible only by the difference in the way it acts now from the way it acted before. And causation means that at the same point of space one thing is followed

by another at a different instant in time; causality unites space and time, depends upon them, and could not occur without them. The unalterable characteristics of matter, which we know *a priori*, like impenetrability, indestructibility, and mobility, all imply occupation of space and persistence in time. So causality, and with it matter, are merely ideas that presuppose the prior presence of the opposition between objects that are known and a subject that knows them. And both perceived objects and perceiving subject have arisen, in their mutual opposition and interdependence, from the thing in itself which alone is ultimately real. The poets are right when they speak of life as a long dream.

VI. THE OBJECTIFICATION OF THE WILL

In the second book of *The World as Will and Idea*, Schopenhauer develops his doctrine of the will as objectified in nature. Through ideas man is conscious of his own body as a physical object in a world of such objects, and subject to its laws. Through immediate intuition he is aware of his will. His body is the product and instrument of will. His feet are an objectification of the desire for locomotion, his digestive organs of hunger, his brain of the desire for knowledge. Were it not for the will, he would have no body at all.

Could a person regard all the objects about him—other persons, animals, plants, inorganic things—as ideas that exist only for him, as merely instruments of his *individual* will, with no other basis for existence except his own consciousness of them? Such a view Schopenhauer says would be egoism; (it is now usually called *solipsism*, from *solus*, *ipse*, one's self alone exists). While Schopenhauer thinks that there is no logical way to refute it, he says that such a view is obviously absurd; anyone who seriously held it would belong in a madhouse. Although a person can by direct intuition become aware only of his own will, he can infer by analogy that the body of each other man is, like his own, the external

manifestations of a will, of which each other man is, like himself, intuitively aware.

How are we to understand animals, plants, inorganic objects? Mathematics treats of these only as they fill space and time, that is, as they are quantities. It cannot tell us what they really are. The natural sciences either merely classify the permanent forms and structures of things (morphology), or else they simply indicate the order of the changes that occur in them; for the latter is all that causal description (etiology) amounts to. Sciences tell us absolutely nothing about the inner nature of the phenomena which they classify, and the regular order of occurrences which they describe. They disclose nothing about the real nature of anything. No science can reveal the force on account of which a stone falls to the ground, or one body repels another, or what produces the growth of a plant and the movements of an animal. No science can discover ultimate reality.

Now to return to ourselves. We perceive our own bodies as objects subject to the same scientific laws as other objects; at the same time we experience our own inward wills. A bodily action is nothing but an act of will *objectified*, that is, passed into perceptions. When I walk, my movements are simply my will perceived externally. Thus perceived, every movement of my body can be described causally; there are no uncaused movements. Viewed internally, every volition is the carrying out of a motive, for there are no unmotivated acts of my will as an individual. Both the cause of the bodily movement viewed externally and the carrying out of the motives as seen internally are subject to the principle of sufficient reason, and they are in reality the same process viewed from two different aspects. We therefore know ourselves externally as physical objects like other physical objects in the world, and we are aware of ourselves inwardly as wills. Those are the only two possible ways in which we have any knowledge of any kind about ourselves. And we know that the inward aspect of ourselves, the will, is ultimate and real,

and that the external aspect is only the phenomenal manifestation or objectification of the will.

What is true of ourselves we can reasonably infer is true of all else in nature. The ultimate reality, the universal aspect of everything is will. The inward force which impels the movements of animals, and that which germinates and vegetates in plants, that through which crystals are formed, that by which magnets turn to the north pole, even gravitation itself,—all these, different as they are in their appearances as phenomena, are in their inmost nature identical with what we know in ourselves as will. Will is the inner nature, the kernel, of every particular thing, of every blind force of nature as well as of the preconceived actions of men. Things differ from one another only in the degree in which the will manifests itself.

The will as a thing in itself is different from its manifestations in phenomena. Time and space are the principle of individuation; it is through them that the will differentiates itself into diverse objects in different places and at different moments, all of which are nonetheless interconnected according to the laws of causation. Every individual thing or person is determined through and through in all its activities, although the causal determination of inorganic objects differs from that of organisms' due to stimuli, and of conscious intelligence due to motives. When Spinoza said that if a stone projected through the air had consciousness it would believe that it was acting of its own will, Spinoza was right. The impulse given it is for the stone what a motive is for a man; what in the stone appears as cohesion, gravitation, and rigidity is in its inner nature what we know as will, and what the stone, if it were conscious, would also recognize as will.⁴

The will as a thing in itself, outside of time and space through which it individuates itself into different objects, is one and indivisible. The multiplicity of things in time and space does not affect the will in itself; it would not be true to say that in some way or another there is a smaller part

of will in the stone and a larger part in a man, for the relation of part and whole belongs only to space and does not apply to the will as a thing in itself. The will reveals itself as complete in one oak as in a million oaks. The multiplicity of individuals does not belong to the will itself, but only to its manifestations. The thing in itself is present entire and undivided in every object of nature.

The will as thing in itself, however, before revealing itself in a multitude of individual things, first objectifies itself in an Idea. Every original force of nature is such an objectification as an Idea,—a timeless, spaceless, causeless, unchanging law of nature. The will through time and space multiplies the Ideas in innumerable instances as phenomena determined by the laws of causality. The will has different *grades* of objectification; these grades are the Ideas. The *lowest* grades are found partly in those universal forces of nature which appear in all matter, like gravity and impenetrability, and partly in those that appear only in different species of matter, like rigidity, fluidity, elasticity, electricity, and chemical properties of every kind.

Higher grades of the objectification of the will as Ideas are the various species of plants, animals, and man. Any particular plant, animal, or man is a specimen, an individuation, of the species at a specific time and place in accordance with the principle of sufficient reason. All of these individuals are in perpetual war with one another in the *struggle for existence*. The blind striving and struggling in inorganic nature gradually become conscious in animals and man. Schopenhauer, however, came before Darwin. For Schopenhauer each of the Ideas, including every plant and animal species, is eternal; it is individuated by the will through space and time into the particular plants and animals which now exist. He does not think of any species as having been evolved from any other species, much less of the struggle for existence as playing a part in the evolution of species. So Schopenhauer did not anticipate Darwin's theory of the

origin of species. At the same time, by the suggestion that the Ideas, including species, are arranged in a logical gradation, Schopenhauer helped to prepare the way for the Darwinian theory of organic evolution.

VII. AESTHETICS

In the third book of *The World as Will and Idea*, Schopenhauer develops his views on aesthetics. The Ideas, as we have seen, are eternal. They stand between the will as thing in itself and the changing individual things in which the Ideas are exemplified. Knowledge as a rule remains subordinated to the will; we know merely in order that we may carry out our desires which proceed from the will. This subordination is invariable in the case of animals. Man, however, can in brief aesthetic experiences for the moment abolish this subordination to the will, and *fix his contemplation directly upon the Ideas*, apart from the satisfaction of desires. When he does this, the distinction between subject and object disappears for him, since this distinction exists only in individuals differentiated from one another through the principle of sufficient reason, and does not hold for the Ideas prior to such differentiation. Only in the world as idea, the world of perceived objects, is the subject distinct from the objects it perceives. Whoever becomes so absorbed in the perception of nature that he loses all sense of individuality awakes to the realization that he and nature are one and the same ultimately. This is expressed by Byron when he says:

“Are not the mountains, waves and skies a part
Of me and of my soul, as I of them?”

To anyone who has grasped this truth, the events of the world are significant only as the letters out of which we read the Ideas. This kind of knowledge, concerned with the Ideas, the unchanging contents of all changing things, is *Art*. It reproduces the eternal Ideas in a material medium, as sculp-

ture, painting, poetry, music. The man who produces or recognizes the Ideas in a work of art is a *genius*; for actual works of art are almost always very imperfect copies of the Ideas, and it takes a genius with imagination to discern the Idea in them. The genius often appears mad to ordinary unimaginative men who perceive only a commonplace object where the genius sees an Idea; this Plato shows in the allegory of the cave and elsewhere, and many poets have since pointed it out. While most of us are not geniuses, yet every man who is capable of aesthetic pleasure at all has a little capacity for recognizing the Ideas underlying the objects of nature and art which reproduce them.

A simple illustration is the pictures of still life, in which Dutch artists have taken insignificant objects and so presented them that the onlooker, like the artist who produced them, surveys them in a peaceful, still frame of mind, free from all will and desire and consciousness of selfhood and individuality. Landscape painters, notably Ruisdael, have painted insignificant country scenes which even better produce the same effect. These are illustrations of the *beautiful*, which consists of delight in perceptual knowledge as such, without our feeling any struggle with the will. The sense of the *sublime*, on the other hand, involves such a struggle, and is accompanied by a constant remembrance of the will in general, which has to be overcome so that only a state of pure contemplation remains. A mild experience of the sublime is found in contemplation of the boundless prairies of North America with their calm peace, in contrast with the dependence and poverty of the will which needs constant action. The sublime is more marked in contemplation of a desert devoid of all organic life, with only naked rocks visible. A violent storm at sea, contemplated with attention only to the eternal Ideas and with indifference to the desires and fears of the will, gives a still more impressive sense of the sublime. Again, if we lose ourselves in contemplation of the infinite greatness of the universe in space and time, remem-

bering that this universe exists only as our idea, we experience the sublime, undisturbed by the littleness of the impulses of the will.

Architecture as a fine art brings to distinctness some of the Ideas which are the lowest grades of the objectivity of will—such as gravity, cohesion, rigidity, hardness,—universal qualities of stone, and simplest, most inarticulate manifestations of will. For the sole aesthetic material of architecture is the conflict between gravity and rigidity, which the art reveals with perfect distinction in relation to light. The architect could produce these effects with most freedom in the milder climates of India, Egypt, Greece, and Rome. In northern Europe the harsher climate restricted his freedom, and the caissons, pointed roofs, and towers of Gothic architecture had to be embellished with ornaments borrowed from sculpture.

A higher grade of art is revealed in *animal painting and sculpture*, like the horses at Venice and the Elgin marbles, which reveal forms of life uncontrolled by intellect, and expose the will in its stronger traits, free and naïve. These reveal the universal characteristics of the species, not of individuals, for animals have only the character of their species; however, in contemplating such works of art, we see the identity of the universal will in animals and in ourselves. In *historical painting and sculpture*, on the contrary, the characters of individual men as well as of the species are exposed, and the problem arises how to combine the two. For human beauty is a representation in sensible forms of the fullest objectification of will at the highest grade knowable, the Idea of man in general, and yet it also brings out the character of the individual man. So ancient sculptors disclose the beauty of the species and at the same time the character of the individual in varied forms, one way in Apollo, another in Bacchus, still others in Hercules and Antinous.

The highest of the arts that reveal Ideas is *poetry*, which

represents men in the connected series of their efforts and actions. The poet represents significant characters in significant actions, and is more successful in the real unfolding of the Ideas than the historian, who has to select persons and circumstances as they come in their tangled temporal connections of causes and effects. So far, more really genuine inner truth is to be attributed to poetry than to history. In lyrical poetry, songs, the poet perceives and describes his own inward state. Yet the greatest lyrical poets give expression to the inner nature of all mankind, all that millions of past, present, and future generations have found or shall find true of themselves in the same situations, which constantly recur. In other kinds of poetry the poet more or less conceals himself behind his representation, partly so in the ballad, increasingly in the lyric, the idyll, and the romantic poem, and wholly so in the poetical drama, which last is the most objective, complete and difficult form of poetry. The poet is the mirror of mankind, and brings to its consciousness what it feels and does.

Both on account of the greatness of its effect and the difficulty of its achievement, *tragedy* is the summit of poetical art. It represents the terrible side of life, the unspeakable pain, the wail of humanity, the triumph of evil, the irretrievable fall of the innocent and the just. It is the strife of the will with itself. The true sense of tragedy is that the hero atones, not for his own individual sin, but for the crime of individual existence, for the breaking of the will into separate persons. This is the *original sin*; for Calderon was right in saying that the greatest crime of man is that he was ever born at all. The representation of a great misfortune is essential to tragedy. The misfortune may be due to a character of extraordinary wickedness, like Richard III, Iago, and Shylock in Shakespeare's plays, or through blind fate, chance or error, as in the *Oedipus Rex* of Sophocles, and in *Romeo and Juliet*. Or, and this Schopenhauer thinks the best form of tragedy, the misfortune is due to the mere position of the

characters with regard to each other, without any one being entirely in the wrong. For such tragedies show us great misfortunes, not as exceptions to the general rule of life, but as arising easily and of themselves out of the ordinary actions and characters of men. *Hamlet* belongs to this class so far as the relation of Hamlet to Laertes and Ophelia is concerned; so does *Wallenstein*; so also Goethe's *Faust* if the events connected with Gretchen and her brother are regarded as the principal action. Tragedy reveals to us life in its truest and profoundest significance.

But *Music* stands by itself, different from all other arts. For the other arts reveal the Ideas, while Music penetrates behind the *Ideas* and *reveals the will as a thing in itself*. In a harmony, the bass notes represent the lowest grades of the objectification of the will, unorganized nature, the mass of the planet; higher notes represent the world of plants and beasts. The intervals of the scale parallel the grades in the objectification of nature, the different species. In the melody, the high, singing principal voice represents the highest grade of the objectification of the will, the intellectual life and effort of man. The nature of man consists in the fact that his will strives unceasingly and is never satisfied. This the composer is able to reveal to us. The inexhaustibleness of possible melodies corresponds to the inexhaustibleness of nature in the differences of individuals, physiognomies, and courses of life.

The pleasure that we receive from all beauty, the consolation that the artist affords us, enables us for a moment to become absorbed in his composition and forget ourselves as individuals, and all our personal cares. We realize that we are one with all nature as an expression of the will, that all life, and not merely our own, is futile suffering. To forget ourselves in this way affords us temporary relief from the gnawing pains of self-conscious individual desires.

There obviously is much in Schopenhauer's aesthetics that is suggestive and can be accepted by those who reject the

pessimistic notes. Perhaps the chief criticism that has been directed against Schopenhauer's interpretation of art is that it takes too much the side of the spectator of art, or in the case of music the listener, and that it does not do full justice to the creative spirit of the artist himself, and his desire for expression and communication.

VIII. ETHICS AND RELIGION

In the fourth book of *The World as Will and Idea*, as well as in the *Basis of Morality*, Schopenhauer states his views on ethics and religion. While our actions proceed inevitably from motives according to the principle of sufficient reason, yet our motives are aspects of our characters and we are blameworthy for what we ourselves are. The world itself and the forms of space and time and causality in which it is organized, as well as we ourselves, are all products of the will to live. And the will to live is free, undetermined by anything. And that will are we, in our inmost nature. Therefore we, as that will, in a transcendent sense, are responsible for the evil in the world. Our original sin is in having been born as finite individuals, with the egoism that finite individuality necessarily implies.

The actions of men may be classified as *immoral*, motivated either by selfishness or else by malice, and *moral*, when their basis is sympathy. *Sympathy* implies that we recognize our own fundamental identity with those whom we pity, so that their suffering becomes our suffering also. *Justice*, with its impartial recognition of the equal rights of others and the obligation to render to each his due, is an expression of sympathy. A fuller expression is found in *Benevolence* (*Menschenliebe*), the love inculcated by the purest forms of Buddhism and Christianity, that returns good for evil, bears and endures all things, and is completely unmindful of self. However, acts of altruism, whether prompted by justice or benevolence, only mitigate and do not permanently solve the

difficulties of life. They do not prevent life from continuing, and all life is frustration. So Schopenhauer does not go into the details of systematic ethics or of the philosophy of law and the state.

It is best to *deny the will* altogether, so that it can no longer manifest itself in finite individuals who strive and unceasingly suffer. Asceticism is a desirable step in this direction, especially celibacy, which if universally practised would presently ensure that there would be no more individual human beings in existence. This would effectively check the will to live. Fasting and scourging are good, because they help to weaken desires of all kinds. Schopenhauer believes that the fundamental teachings in both primitive Buddhism and Christianity, before these religions degenerated, were the universality of suffering, the duty of charity, celibacy and other forms of asceticism, and the exhortation to do everything possible to extinguish self-consciousness and individuality. He is contemptuous of those who interpret Christianity as a world affirming religion. True Christianity is negative; it denies that any finite personal life or struggle is good. It teaches poverty and complete annihilation of all interest in the world. Schopenhauer quotes copiously, if not convincingly, from the New Testament and church fathers in support of his contention. He of course denies the existence of a personal, providential God, who is interested in men. The world will is utterly devoid of purpose and intelligence; otherwise it would not blindly and stupidly will this horrible world in which we live.

The thing for us to do, therefore, is to escape from the world, and if possible help to bring the world itself to an end. Suicide affords no such escape. It is an affirmation, not a denial of the will to live. Whenever an individual dies, another is born to take his place. Schopenhauer here is rather vague. He explicitly denies that there is any such thing as personal immortality. Yet he also seems to deny that through suicide a man can really destroy his own personal identity

with its futile egoistic desires. This confusion does not seem to have escaped the notice of some young people in Germany who had become converts to his philosophy, and Schopenhauer has been accused of having been responsible for many suicides. There is a similar vagueness in some forms of Buddhism, which, although they deny the existence of an enduring soul or self, nevertheless say that in accordance with the law of Karma an individual will suffer endless incarnations, unless he can escape out of finite existence altogether by following the Buddhist way of salvation.

Since Schopenhauer affirms that there are no conscious intelligent beings in the universe except man, he has sometimes been interpreted to imply that if all men were effectively to deny the will to live, the world as idea would pass altogether out of existence, and the eternal quiet of Nirvana would become universal. The world will would cease to individuate itself, and would be at rest.⁵

On the whole, Schopenhauer gives the impression that every individual man ought to repress his desires, practice strict celibacy, and cultivate a contemplative life. If he does this he may hope ultimately to enter a blissful state of existence, free from all desires and from everything that we think of as consciousness, similar to what Buddhists mean by Nirvana. This is as definite a statement as it seems possible to make regarding what he meant by "denying the will to live," and the reward that can be gained thereby. Not having reached any such perfect state himself, although he believed that Buddha and other great mystics had done so, he could only praise it as a philosopher, who knows of it by hearsay, and not by personal experience.

Another possible interpretation is that Schopenhauer actually enjoyed his pessimism and did not honestly desire an escape from his present state, either for himself or for the universe. There are men who find their chief joy in pitying themselves, and would under no circumstances be willing to forego this pleasure in exchange for any other. Schopen-

hauer may have been such a man. Furthermore, being a philosopher, he may have universalized his own attitude. He believed his own life to be one of complete frustration. He concluded that all other lives are equally futile. He enjoyed pitying himself. He wished other men to experience like joy. Moreover, since all living beings are in reality identical in the will to live, all persons should unite in a kind of universal self-pity that will no longer be individual at all. He thus unconsciously cloaked his own self-pity, making it appear as disinterested aesthetic contemplation, moral sympathy, and religious renunciation of the ordinary interests in life.

IX. CRITICISMS

To criticize Schopenhauer's mentalism, his claim that the external world of physical things is merely a collection of ideas, would merely be to repeat the realistic criticisms of Berkeley. (See Chapter IX, section VI.)

The pessimism in Schopenhauer may be claimed to be based on a false analysis of desire. It simply is not true, in the opinion of most philosophers, that pleasure is purely negative, that it is merely the removal of pain. The joy in life is something positive; struggle itself is welcome if it is reasonably often successful and leads to further growth. Schopenhauer is right that nothing desired will permanently satisfy anybody, and that whenever a person has some success, he desires to make further progress. Not to continue to strive would indeed be to sink into boredom, except perhaps in the case of the very old. The remedy, however, is not to cease endeavors, but ever to seek new ends which previous attainments have brought within one's horizon. Thus man advances, from year to year in the life of the individual, and from age to age in the history of the species.

If it be agreed with the realists that the external world consists of material things that exist in space and time independent of our ideas about them, the possibility remains that

there may be a permanently purposive will in nature that has effected the emergence of living beings, and through man is now gradually effecting the realization of values. This will could be regarded as God. The justification for such a view may be found empirically in the vast evolutionary progress that has already taken place upon the earth. Once consisting only of dead matter, lowly forms of life appeared, and were succeeded by higher forms, until at last man emerged. Man himself has slowly risen from savagery to civilization. If man has not yet gained full control of his physical environment, and if his own personal morality and political and social institutions are still very imperfect, the great progress that has been made within recorded history gives hope that he will in time master these defects, serious though they are. We may trust that there will never be a stopping point, that however wonderful human achievements may become, there will always be something higher and better lying ahead, to which men can aspire, and which they will ultimately attain. An eternity of unceasing effort and struggle rather than the oblivion of Nirvana is the ideal of blessedness most convincing to the majority of occidental minds. Such an interpretation would in a measure retain the voluntarism of Schopenhauer—the ultimate reality would be Will—but it would be given a theistic and either a melioristic or an optimistic setting. Views similar to those just suggested have been advanced by some of the emergent evolutionists of our own time.

Schopenhauer continues to be a stimulating and provocative philosopher. When he is wrong, it takes thinking to refute him, and one's philosophical insight grows in consequence. And he is seldom altogether wrong; there is some element of truth in almost everything that he says. Even his pessimism is worthy of study. For pessimism is a position that every serious student of philosophy must consider, and Schopenhauer is its most famous philosophical defender. Schopenhauer was probably right when he asserted that in

future generations no man that claimed to be a philosopher could afford to be ignorant of him.

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CHAPTER XVI

NIETZSCHE

I. LIFE

Friedrich Wilhelm Nietzsche (1844–1900), poet, musician, essayist and classical philologist become philosopher, clothed his thoughts in language that is as rugged and virile as that of Carlyle and as fascinating in its beauty as that of Ruskin. *Thus Spake Zarathustra*, his masterpiece from a literary standpoint, presents his philosophy in a mysterious and impressive symbolism that challenges the reader to interpret its underlying significance and to determine the measure of truth in its startling aphorisms. His other works are equally provocative and more easily intelligible. The vehemently asserted half-truths, half-errors—or, more often, less than half truths and more than half errors—of a passionate poetical philosopher like Nietzsche are no doubt of less consequence than the comprehensive and well-balanced reasoning of an Aristotle or a Hegel. However, Nietzsche is more exciting than better balanced philosophers, and no one can read him without being provoked to serious thinking.

Nietzsche believed himself descended from the Polish nobility. However this may have been, his immediate ancestors for two or three generations on both his father's and mother's sides were Germans, successful Protestant clergymen and their wives, vigorous in mind and body, long-lived and healthy, fundamentalist in theology and puritan in morality. No one could have had a better heritage from a eugenic standpoint. Nietzsche's father, pastor at Röcken in the Prussian province of Saxony, was a man of character and ability, who had served as tutor to the royal princesses, and he named

his son, who happened to be born on the king's birthday, after his sovereign. The father died as a result of a fall when Nietzsche was four years old. In consequence, the boy was brought up in a household of women,—his mother, grandmother, and two maiden aunts. The only other child in the home was his sister Elizabeth, who was devoted to him throughout his life, and who wrote appreciative memoirs of him after his death and edited his correspondence. The women ran the household on earnest but narrow religious lines. They petted, and some would say spoiled, the boy who they hoped would grow up to be a brilliant preacher like his father and grandfathers.

The boy's reaction to this loving and well-intended but unwise feminine bringing-up is understandable. He disliked being called "the little minister" by the other boys at the first school he attended, although his manners, studiousness, and deportment made the nickname appropriate. He made up his mind that he wasn't going to be a minister. With developing critical faculties he presently saw the intellectual difficulties in the naïve faith of his mother and grandmother, swung to the opposite extreme, rejected Christianity altogether, and became an atheist. While in attendance at the university at Bonn, he attempted for a while to smoke, drink, and fight duels like the other students. It has even been intimated that he went on one nocturnal expedition which resulted in the contraction of syphilis and his ill health in later years; but there is no evidence to corroborate this intimation which is probably untrue. He temperamentally disliked dissipation of every kind, and he did not long try to be a "good fellow."

By inclination a student with unusual gifts, he won scholarships, as well as the favor of the renowned classical philologist F. W. Ritschl, who inspired him with a love for Greek and Latin literature and philology. He wrote brilliant papers, some of which were published, and at Ritschl's recommendation, at the early age of twenty-four he was called to a chair

of classical philology at the university of Basel (Bâle) in Switzerland. His novel views on philology seemed fantastic to his colleagues, and their disapprobation, probably combined with the fact that he had never really been a boy himself, prevented him from attracting many young men to his classes or becoming a very successful teacher. Nevertheless, his scholarly achievements won his promotion to a full professorship.

In the Austro-Prussian War, while a student at the university at Leipzig, he entered the mounted artillery service with romantic enthusiasm. He found warfare disagreeable, but he persisted faithfully until he fell from his horse and received a serious injury to his chest which forced him out of the army. By the time that the Franco-Prussian war broke out in 1870, Nietzsche had become a Swiss citizen, and found to his disappointment that he could not serve in the German army as a combatant. He went into the ambulance service, where he labored arduously. Overwork and fatigue made him a victim of diphtheria and dysentery, and he was obliged to retire. It is possible that the sight of the horrible suffering of the wounded men whom he attended gave him a nervous shock from which he never fully recovered, especially since he returned to the duties of his professorship at Basel before he was physically fit to do so. He thereafter suffered from eyestrain, severe headaches, indigestion, and insomnia, but he continued to teach until ill health forced him to resign his professorship in 1879.

For the ensuing ten years he lived on his modest personal income and retiring allowance as a professor, moving from place to place, chiefly points in Switzerland and northern Italy, living by himself and seeking to recover his health. During these years he published his now best-known works, but they then attracted little attention. In January, 1889, he had an apoplectic stroke which rendered him unconscious for two days, and he never recovered his sanity, except for brief moments. Thenceforth he was cared for, first by his

mother, and after her death in 1897, by his sister. During these last pathetic years his writings began to attract attention, and he has since become one of the most widely read philosophers.

This extraordinary man was mild, kind, and gentle in disposition, although nervous and irritable at times, and not easy for anyone to associate with for very long. He idealized his friends, and was likely to break with them when he awakened to their faults. He kept steadily to the course which he believed to be right—advocacy of the overthrow of modern Christian culture and democratic morality, and a revival of what he conceived to have been the ancient Greek aristocratic ideal of life. He sacrificed friendships and popularity in the interests of truth as he saw it. After his retirement, living in isolation, in struggle with constant illness and pain, he wrote book after book without receiving recognition until after his mind was gone. Largely mistaken, as most judge him to have been, no one fails to admire his courage and sincerity.

II. THE FIRST PERIOD

The first period of Nietzsche's career as a philosopher begins with *The Birth of Tragedy*, published in 1872, and ends in 1878. In the book mentioned, Nietzsche interprets the inner significance of Greek life and literature as he sees it. This is a conflict between the primal "will to live" of Schopenhauer, which Nietzsche transforms into a joyful and impulsive assertion of instincts, naïve, passionate, and lawless, which became associated with the orgiastic ceremonies of *Dionysus* (Bacchus) on the one hand, and in opposition to it, calm, ordered, rational thought, symbolized by *Apollo*, god of wisdom and justice and associate of the muses. The Apollonian attitude, when excessive, made the Greeks too intellectual, too interested in past history and abstract thought. When it finally became dominant with and after

Socrates, the Greeks became so much addicted to philosophical analysis that they ceased to be either men of action or great contributors to poetry and art. Decadence ensued. The Dionysiac attitude, on the contrary, when excessive, was little more than riotous lawlessness, drunkenness and fighting. The Greeks were at their best both as poets and men of action when the two were happily combined and moderated by each other. Homer and the best tragic poets illustrate this combination on different levels of culture. When Nietzsche wrote this book, he thought the right combination of the two attitudes would soon be realized in the modern world through the further development of German music, of which his friend Richard Wagner was the latest and best interpreter.

Nietzsche at this time, therefore, accepts in the main the philosophy of Schopenhauer, in its idealistic and voluntaristic features. The world as will is primary; the world as idea is secondary and derivative. He also accepts in general Schopenhauer's view of art. Music reveals the world as will; the other arts reveal the Ideas. Where he differs from Schopenhauer is that he takes art more seriously. Art is not merely a temporary palliation of the ceaseless and futile striving of the will. Nietzsche finds aesthetic delight so great that he believes that in it the will comes to joyous positive satisfaction, and life is made worth while. In his joyous love of beauty in nature and art, Nietzsche reminds us of Schelling and the other German romantic philosophers. Through aesthetic creation and appreciation man not only endures, but positively enjoys life and finds it good. *The world becomes metaphysically justified in its existence because it makes aesthetic experience possible.* Thus Nietzsche in this book begins to substitute for Schopenhauer's injunction to "deny the will to live," the positive command to "*affirm the will for power.*" By *power*, he at this time means action, especially in aesthetic production and enjoyment. He makes little reference to Christianity but he clearly means to exclude it,

which he, like Schopenhauer, interprets as a religion teaching the denial of the will to live—a denial of which, unlike Schopenhauer, he disapproves. He wishes modern men to revive the old Greek affirmation of the will in a combination of Dionysiac and Apollonian tendencies, in which artistic creation will be active and men will be strong and vigorous and not absorbed either in abstract speculation or in Christian charity and asceticism to the extent that they will lose their effectiveness and become decadent.

The other principal work of this period, *Thoughts out of Season*, implies a similar point of view. Nietzsche exposes the cultural defects in Germany at the time, and urges reforms. It is a great mistake to be blind to these and to imagine that the recent victory over France was due to the superiority of German culture. The military victory was simply the fruit of physical and moral courage, in which Germans have always excelled, under the guidance of competent generals. German culture is still far inferior to that of France, from which Germany has much to learn. He evaluates the study of history, which has for its merits liberation from the limited horizon of the present, knowledge of previous events, and acquaintance with the great creative spirits of the past. Through a critical study of history, we can intelligently plan for a future that will be a new creation, not a repetition of the past. On the other hand, the wrong use of history—and he seems to think that history was usually studied and taught in the wrong way—renders men inactive, gives them a sense of inferiority in comparison with the great figures of the past, makes them mere imitators, epigones. He satirically attacks David Strauss, whom he accuses of using history in the wrong way. He holds up Schopenhauer as a model for educators, because he was an independent and creative thinker. He sees in Richard Wagner a great artist whose genius is able to reveal the real spirit of the historical and mythological heroes of the Middle Ages, and so uses history rightly, and whose reformation of music and the

theatre will in time lead to improvements everywhere—in the customs of the people, in education and social intercourse. Nietzsche was mistaken in his estimations of Strauss, Wagner, and Schopenhauer, as he afterward acknowledged; but his characterizations reveal what Nietzsche's own ideals were, and what types of men are and are not in accordance with them.

III. THE SECOND PERIOD

Nietzsche's second period is dated from 1878 to 1882. It begins with the serious breakdown in health which compelled him to resign his professorship. He became estranged from Wagner, in whom he was disappointed largely on account of Wagner's increasing admiration for ascetic Christianity which found expression in *Parsifal*. Nietzsche could no longer hope that Wagner would effect the restoration of the Greek attitude toward life. Nietzsche unaided must do what he could to bring about the reformation which he believed indispensable if modern mankind were again to become healthy and overcome decadence. In his loneliness, suffering from serious eye trouble and threatened with blindness, nervous from lack of sleep, and partially estranged from his relatives on account of his rejection of Christianity, he made a resolute struggle, and wrote as best he could. He was able to work only for short periods at a time, and he found that under these circumstances he could best express himself in short compositions consisting largely of aphorisms, beautifully written, and pungent, designed to arrest the reader's attention, and to compel him to think. These short compositions Nietzsche would combine in a book, with no very definite logical structure or continuous argument. He probably knew that many of his assertions were exaggerations, and that some of them would appear to contradict others, at least upon superficial examination. Yet the main core of his thought was consistent, and he hoped that it would prove convincing.

The three books of this period are *Human, all too Human*, *The Dawn of Day*, and *The Joyful Wisdom*. The first was written when his depression and ill health were extreme. In the latter two, he shows the effects of somewhat improved health, more cheerful spirits, and greater confidence; in consequence, they are more coherent and better organized in thought and composition.

These books show an admiration for scientific research, and a slight acquaintance with biology and sociology; that is all the justification there is for calling this his "scientific period." In some moods he is rather skeptical: absolute truth and morality are unknowable; all metaphysics is to be rejected. Men should and do believe and act upon whatever principles will work at the time. On the whole, however, Nietzsche remains enough of a metaphysician to believe that the ultimate reality of the world is will. His moral and social ideal is not that of the German nationalist, but of "the good European" with "a free spirit," who investigates truth fearlessly and exposes shams and superstitions. Accordingly *Human, all too Human* is dedicated to the memory of Voltaire, the centennial year of whose death occurred about the time of its publication. Morality is largely relative; what is right for one man or one age may be wrong for others; there are no absolute moral standards; as "free spirits" men should be untrammelled by customs and at liberty to seek the good for themselves according to their own judgments.¹ Yet Nietzsche seems to be confident that all "free spirits" will agree with his own moral ideals, which, while not so clearly thought out as in his third period, include the virtues of the ancient Greek of aristocratic rank: honesty toward self and friends, bravery against foes, generosity toward the conquered, courtesy toward all.²

Christianity he emphatically rejects for many reasons. There is no God. Belief in God is well nigh extinct; this is what he means when he says "God is dead." Prayer is absurd. Christianity as originally taught by Jesus was bad; it

was made worse by Paul and those after him. It puts false emphasis on love, pity, sympathy. It overthrew the old Greek ideals and values. It is thoroughly pernicious for the modern man, who should be a "free spirit," self-assertive and self-reliant. Its conceptions of sin and guilt are all wrong; the will is not free, and men should not be judged as if they were responsible for their actions. Criminals should not be reproached and punished as if they were guilty and sinful; here he seems to anticipate the ideas of the more radical among recent criminologists.³

IV. THE THIRD PERIOD

The important works of Nietzsche's final period (1883-1888) are the following. *Thus Spake Zarathustra* covers the entire range of his philosophy, but is difficult to understand on account of its allegorical symbolism, although it is a book of rare beauty. Zarathustra states the views of Nietzsche. This work and the *Poems*—the latter not difficult—should if possible be read in German in order that they may be appreciated from a literary standpoint. *Beyond Good and Evil* and *The Genealogy of Morals* are easiest to comprehend. They emphasize the proposal for the transvaluation of all values. *The Will to Power*, Nietzsche intended to be his *magnum opus*, and in it to give a final and complete presentation of his system as a whole. It is in some ways the most satisfactory of his books, although he was obliged to leave it unfinished. *Antichrist* is an extended attack upon Christianity. *Ecce Homo* is an autobiography, written just before the stroke of apoplexy which cost him his sanity. The title and the chapter headings betray megalomania; but the book is valuable for the light it throws upon the character and development of his thought.⁴ As all the books of this period are in substantial agreement in thought, it will not be necessary to give separate accounts of them.

Schopenhauer had affirmed that the fundamental reality is

will, that the world as idea is secondary. This Nietzsche continues to believe, although he in his third period does not believe it possible to develop a logic of individuation as Schopenhauer had done with his principle of sufficient reason. It is only in this limited sense that Nietzsche in this period rejects metaphysics. Schopenhauer affirmed that the will always defeats itself; the world of persons and things is irretrievably bad; it is best to deny the will altogether. Nietzsche, as we have seen, even in his first period believes that in aesthetic experience the will is successful and justified; the will, guided by a proper synthesis of Dionysiac and Apollonian principles, ought to be affirmed as a "will for power." In his third period Nietzsche continues to believe this. He now has additional reasons for doing so, suggested to him by the scientific reading in which he had been engaged during his second period.

Nietzsche's version of *evolutionism* is an instance. It is possible that he came to believe in biological evolution from reading Darwin and Spencer, but his interpretation of it is quite different from theirs, and he always refers to them with contempt. The strife between different species, and between individuals of the same species, is not for Nietzsche as it was for Darwin, a struggle for mere existence, and it is not the outcome of the survival of those whose chance variations have happened to conform to the environment. Nietzsche rejects mechanism and materialism entirely. He believes that the fundamental impulsive force in nature is the will for power. His conception of this resembles Schopenhauer, and the French biologist Lamarck, far more than any British biologist. The will for power is an active force which shapes and creates forms; it uses and exploits the environment for its own ends. Nutrition and procreation are processes by which the will for power maintains itself and overcomes obstacles. Pain is of positive value; it gives the will a chance to overcome it. Nietzsche is no hedonist; he absolutely glorifies pain. Feeling, consciousness and thinking are

later-evolved processes by which the will achieves victories over nature.

Nietzsche carries over his interpretation of evolution into his discussions of *logic* and *ethics*. Logical processes, including Kant's categories, have nothing *a priori* or universal about them. They are products of evolution, tools which the will invents and employs for its purposes; they tell us nothing of the real nature of reality. Truth is simply what works for the time, and good is merely what furthers the desires of the will. There are no absolute standards in either logic or ethics, and what is true and right at one time may be false and wrong at another. It has often been pointed out that in these views of logic and ethics, Nietzsche's "biological relativism," as it is sometimes called, shows a little resemblance to views of the American pragmatists, William James and John Dewey, but their conceptions developed and were applied in entirely different ways, and owe nothing to him. While Nietzsche seems at times to deny that there are absolute standards in truth and morality, yet after all he clearly believes that his own philosophy is absolute truth, and that affirmation of the will for power is always absolutely right and good. Nietzsche is fundamentally neither a relativist nor a pragmatist.

The will for power is good. It makes possible the evolution of higher types of life. It produced in the early Greek period strong, competent individuals with healthy and beautiful bodies, keen intellects and aesthetic powers of productiveness and appreciation. It would continue to do so if European civilization had not travelled upon the wrong track during the past two thousand years, encouraging the weak and incompetent, the biologically unfit, and repressing strong-willed individuals of a type similar to the old Greek aristocracy. Nietzsche accordingly cites biology in defense of his desire to restore Greek culture. The ancient Greek type was biologically sound; the modern Christian type is degenerate. If the ancient type can be revived and the old

ideals restored, evolutionary progress will be resumed, and in the future there will emerge the *superman*, who will be as much above man as we know him as man is now superior to the apes. Occasional wars are desirable in order to develop firm characters and brave men of action, and so facilitate the evolution of higher types. Thus Nietzsche finds in biological evolution an assurance of the possibility of progress. Discouraging as is the present condition of man, pessimism is not an inevitable inference as with Schopenhauer; progress is possible, even the arrival of the superman.

Nietzsche's interpretation of modern physical science confirms the old idea of evolution in cycles taught by some of the early Greek philosophers like Heraclitus, Empedocles, and Pythagoras. Nietzsche's version of this is his law of *eternal recurrence*. Since space, matter, and energy are all finite and limited in amount, while time is unending, it is inevitable that exactly the same combinations of matter and energy in space will recur again and again in the future. If you are a strong heroic man of culture leading a noble life that you will be willing to live again an infinite number of times in the future, the prospect of eternal recurrence will cheer you; if you are a decadent, you will recoil in horror before the prospect that you will have to lead the same life again and again, world without end. Only the noble, heroic, joyful man can face eternal recurrence with equanimity.

We therefore need a *transvaluation of all values*, i.e., a rejection of the current values of Christianity, democracy, utilitarianism, and socialism, and a return to the old values of nobility and aristocracy. Nietzsche believes that the terms "good" and "bad" (*schlecht*) were employed in the old morality of the *masters* (*Herren*) in one sense, and "good" and "evil" (*böse*) by that of the *slaves* in a different sense. For the masters, e.g., the old Greek aristocrats, the Aryan conquerors of India, the early Romans, the Goths and Vikings, the Arab, German, Japanese nobility,—"good" meant persons like themselves, splendid "blond beasts," rich and

mighty lords, rulers, owners. Such were brave, outspoken, truthful, pure-minded, unwilling to mate with the lower classes. For the masters, "bad" meant the folk whom the nobles had conquered,—the dark-complexioned, ill-favored, stupid, servile, cowardly, lying, treacherous people fit only to be slaves and engage in economic labor to support the masters in their free lives of adventure and culture. For the slaves on the other hand, "good" meant to be like themselves,—poor, impotent, needy, suffering, sick, ugly, meek, lowly, and simple-minded; while "evil" meant to be like a nobleman,—wicked, cruel, lustful, domineering, powerful.

The servile classes, led by the priests who wished to get the upper hand, came to a complete triumph over the noble classes with Christianity, which has deprecated the manly, soldierly virtues of courage and self-assertion, honor, and appreciation of beauty, and in their place extolled sympathy, pity, meekness, gentleness, pacifism, submissiveness, preservation of the lame, halt, blind, stupid and incompetent, and sufferers of every description. Christianity owed its origin to the Jews, a slavish people who hated their manly conquerors. The Jews were shrewd enough to reject Christianity for themselves, and by doing so they more easily tricked the Romans into accepting it. The secret motive of Christianity is the hope of the slave for vengeance upon his masters and ultimate domination over them; this is promised to the Christian in the Biblical book of Revelation and in the patristic writings; he shall triumph over his masters in the next world, and in enjoyment of the felicities of Heaven he will exult as he watches them writhing in the eternal torments of Hell.

The result of this victory of Christianity, as well as of movements similar in spirit, like democracy, the emancipation of slaves, equal rights for women and workingmen, and the spread of socialism, has been to preserve and propagate weak and inferior stocks and classes of the population, to lower modern Europeans mentally and physically, to stifle individualism, self-reliance, and true nobility, to suffocate

great music, art and literature, and, in general, to overturn all proper values. Temporary reassertions of the old true values have occasionally occurred, as in the Renaissance and the career of Napoleon. But these have always been put down,—the Renaissance by the Reformation, Napoleon by the Allies, who were actuated by democratic principles (!). Nietzsche is very bitter, and feels himself to be fighting a lonely battle, but he has hope that Europe may in time realize the truth of what he is saying, and that the old culture will be restored. At times a man has appeared in the modern world who is in some measure prophetic of what the superman will be: Napoleon and Goethe, in some respects Leibniz and Voltaire,—and even Caesar Borgia⁵—are commended. Rousseau, John Stuart Mill, and Herbert Spencer are among the worst examples—outside the Christian clergy—of exponents of slave morality in modern times.

Nietzsche hopes that the transvaluation of all values, the reversal of the present dominant slave morality and a return to the noble morality, may be effected. Art is the great stimulus to activity, and in art that properly expresses the will for power, the universe has its ultimate justification. Most modern art is unfortunately decadent and bad; it appeals to the democratic masses. Art should resume its ancient spirit and combine Dionysiac and Apollonian tendencies, especially the former. Nietzsche does not expect that the democratic masses will ever accept his views; it is well enough for them to delight in slave morality and art, which express their own debased spirit. They perhaps must continue to exist, and by their labor to make possible the higher accomplishments of the nobility. But the latter should again gain the supremacy and produce great and creative spirits who will prepare the way for the superman in each successive cycle of the eternally recurrent world. Although Nietzsche hated democracy, it is doubtful whether he would have liked Hitler. Nietzsche thought of himself as “a good European,” not as a German nationalist.

V. EVALUATIONS

Most of us think Nietzsche was oftener mistaken than justified in his contentions. He is chiefly of value as a corrective. However, classical scholars are disposed to credit him with being partly right in his interpretation of the earlier Greek spirit and culture prior to the age of Socrates, and they admit a certain indebtedness to him.⁶ Probably no mathematicians, physicists, or astronomers favor the doctrine of eternal recurrence.⁷ The majority of contemporary philosophers believe that evolution is not wholly materialistic or mechanistic, and is at least in part the expression of an inner spiritual principle. They find something suggestive in Nietzsche's conception of the "will to power," although some would prefer to attribute rationality and intelligence to this will, and those who are theistically disposed find in it a manifestation of God.

Whether there actually has been a degeneration of the European peoples during modern times is doubtful; the implications of biology certainly do not indicate the desirability of wars in which the flower of youth is destroyed. On the other hand, many thoughtful minds believe that the population is too often reproduced by the less fit elements in the stock. It is to be hoped that an accurate science of eugenics will sometime develop that will be able to determine who should and who should not be sterilized or practise birth control. No very reliable scientific information is available on the subject now.

Most of us believe in democracy, and very few regret the abolition of slavery, the admission of women to equal rights with men, and the betterment of the condition of the working classes. Scarcely anyone believes that the humbler classes of society ought to be exploited in the interests of a privileged aristocracy. Yet there is a limit to which the more industrious, more thrifty, and more successful should be taxed and consequently induced to marry late and have small

families, while the more idle, less ambitious, and less responsible benefit by large public expenditures.

It has been true in the past, and is true today, that the patronage of arts and letters by the wealthier classes has done most to foster high achievements of lasting cultural worth. Motion pictures and the music of the radio and phonograph, while affording aesthetic enjoyment to the masses, have not yet proved that democracies are capable of producing or appreciating art of the highest order. We in America are proud of the fact that larger numbers of young people in proportion to the population attend our secondary schools and colleges than was ever true in the past in our country, or in any other country in any age. Yet it must be admitted that the quality of learning acquired in our educational institutions has had to be debased in comparison with the better European countries in order to bring it within the interest and intellectual grasp of the multitudes that crowd our schools. There is a certain truth in the notion of "an aristocracy of brains" which many of our educational institutions have overlooked.

Nietzsche accepted Schopenhauer's interpretation of Christianity as a world-denying religion which favors asceticism and puts its emphasis upon a narrow and restricted life. This kind of Christianity which Schopenhauer in his pessimism favored, most of us agree with Nietzsche in rejecting. But many of us believe that primitive Christianity and most subsequent Christianity has not been of this description. The Christianity that appeals to most men in the twentieth century is not of this kind. It is manly, self-reliant, and world-affirming. It wishes every individual to seek all that will make for a richer and fuller life for himself and for others. And if twentieth century Christianity is concerned to gain a more equal distribution of opportunity and security to everyone, this is not regarded as a fault. In order to have noble ideals, to be brave, generous, truthful, just, wise, and temperate, it is not necessary to be hard, cruel, and ruth-

less. The Christian church should consider Nietzsche's strictures with candor and honest self-examination, recognizing the sincerity with which he made them and the courage with which he endured the loss of friends in consequence of them. The church can often learn much from her severest critics. But most of us believe that on the whole the church has been more nearly right than Nietzsche.

VI. OTHER GERMAN PHILOSOPHERS OF THE RECENT PERIOD

While Schopenhauer and Nietzsche have probably been more widely read outside of university circles in Germany and Austria, the professional philosophers of those countries have had more influence with their students and with their colleagues in other lands during the last hundred years. It will therefore be desirable for the reader to become acquainted with the names of a few of the more important of these philosophers before passing in subsequent chapters to thinkers west of the Rhine.

Some of the successors of Hegel have already been mentioned, at the close of the chapter on Hegel. A very different type of philosopher was Johann Friedrich Herbart (1776–1841), who long occupied Kant's chair at Königsberg, and who in opposition to the monistic idealists of the times advanced a system of pluralism which in contrast was designated "realism" although it now appears to us more like a modified form of idealism. His views on apperception long influenced English and American educators. His doctrine of a "threshold of consciousness," beneath which subconscious presentations press up into consciousness when they can, foreshadows later developments in psychology and psychiatry. Eduard von Hartmann (1842–1906) developed a milder form of pessimism than that of Schopenhauer, which as one of its features emphasized the "unconscious" as the underlying ground from which all conscious phenomena arise. Gustav Theodor Fechner (1801–1887), a pantheistic panpsychist, ad-

vanced a doctrine of psycho-physical parallelism, for which he had some experimental evidence which impressed psychologists.

Rudolf Hermann Lotze (1817–1881), claimed by his admirers to have been “the greatest thinker of the nineteenth century after Hegel,” conceived a system of monads reminiscent of Leibniz, but adapted to the scientific knowledge and religious interests of his own time. His *Microcosmos* was long a favorite textbook for advanced classes in American colleges. Wilhelm Wundt (1832–1920) maintained a system of voluntaristic idealism, which included psycho-physical parallelism. He instituted the first psychological laboratory, made valuable contributions as well to social psychology, described carefully the logical methods of the natural and social sciences, and set forth a treatise on ethics. He taught many American philosophers and psychologists. Friedrich Paulsen (1846–1908), a pantheistic and voluntaristic idealist influenced by Kant, Lotze, Fechner, and Wundt, wrote delightfully clear and inspiring books, among which his *Introduction to Philosophy*, *System of Ethics*, and commentary on *Immanuel Kant* have been popular textbooks in American colleges. Rudolf Eucken (1846–1926), an eloquent and inspiring teacher, whose books were translated into many languages, defended a somewhat different type of idealistic pantheism: the source of all individual mental life is a universal spiritual process which evolves from inorganic nature to spiritual life; in this process the world becomes conscious of itself and human personality emerges.

The “Marburg school,” led by Hermann Cohen (1842–1918) and Paul Natorp (1854–1924), revived the philosophy of Kant in a metaphysically simplified form, and applied it to the study of logic, ethics, and politics. They emphasized the superiority of the state to the individual, but they were not intentionally preparing the way for the totalitarianism of Hitler. The “Freiburg school,” led by Wilhelm Windelband (1848–1915), best known for his brilliant texts in the

history of philosophy, Heinrich Rickert (born 1863), Jonas Cohn (born 1869), and Hugo Münsterberg (1863–1916, long a professor at Harvard), developed idealistic theories of values, somewhat under the influence of Fichte. Their views gained considerable influence in southwestern Germany and in other countries including the United States, and have been defended by their pupils in a well-known journal called *Logos*. An extremely different type of thought was represented by Hans Vaihinger (1852–1933), famous for his *Philosophy of As If*, which has been translated into English and is widely read. For him knowledge is merely an intellectual tool of biological value in adjusting man to his environment, largely by means of fictions which are useful but do not necessarily correspond to anything in reality independent of man. He is indebted to Kant and Schopenhauer, and his treatment of the theory of knowledge includes a more thorough analysis of some thoughts also found in Nietzsche. There are slight similarities between his views and those of the American pragmatists, but neither influenced the other to any considerable extent.

Richard Avenarius (1843–1896) and Ernst Mach (1838–1916) defended positivistic theories of knowledge based on careful examination of scientific methods. They have been studied by philosophers interested in the logic of science, and Mach's popular lectures have been translated into English and are widely read. Alexius Meinong (1853–1920), a pioneer realist, distinguished between logical essences that *subsist* and physical objects that *exist*, both independent of being known; he developed a logic of values; in other ways also he was one of the principal forerunners of contemporary realism in England and America, as well as Germany. Edward Husserl (1859–1938), one of the most influential philosophers in Germany in the twentieth century, has sought to develop a *pure logic* and *phenomenology*, through which philosophy shall free itself from all psychological error (*Psychologismus*) and become as exact a science as mathe-

matics. Among his numerous pupils, probably Max Scheler (1874-1928) has attracted most attention. He rejects all relativism and affirms a series of absolute values, supreme among which are religious values, and next to them moral and aesthetic values. Although these are *a priori*, they are not formal (like Kant) but material in character.⁸

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CHAPTER XVII

COMTE

I. FRENCH PREDECESSORS OF COMTE

French philosophers at the opening of the nineteenth century could not continue to think and write with the reckless audacity of the men of the Enlightenment. The latter had fondly expected that, once the shackles of state and church had been broken, mankind would at once become wise, good and just, govern themselves rationally, and make progress by leaps and bounds. This faith had sustained Condorcet when he bravely went to the guillotine. The expectation had not been realized. Despite the seemingly excellent ideals with which the Revolution had begun, it had culminated in the horrors of the Reign of Terror, and almost its only immediate product had been the destructive militarism and despotism of Napoleon. It was now clear that the well-meaning philosophers whose agitation had helped to bring on the Revolution had made serious mistakes which the philosophers of the nineteenth century must correct.

Joseph de Maistre (1754–1821), a brilliant literary leader of the *traditionalists*, decided that Locke, Voltaire, Rousseau, and the leaders of the Enlightenment generally, had been entirely wrong. Freedom of discussion only results in disorder and chaos. Few men are able to think rightly on many subjects. The natural sciences are valuable for their own purposes; but they do not reveal ultimate truth, and they have no bearing upon religion and social relations. In these latter fields the only proper recourse is to accept the infallibility of the Pope and follow the guidance of the Church. The *Romantic movement* was another influence

that respected the Middle Ages,—a period of stability and authority, productive of a high culture. Could not the nineteenth century learn something from the thirteenth? Most French thinkers were unwilling to go all the way with the traditionalists and repudiate the Enlightenment altogether. Many, however, felt that some kind of spiritual authority must be found to replace that formerly exercised by the Church.

The philosophy of Condillac had dominated public thought during the Revolution. The *psychological* or *ideological school* took its start from him, but sought to correct the deficiencies in his psychology, which had attempted to derive all mental processes from the combination of sensations. The most outstanding member of this school was Pierre George Cabanis (1757–1808), a physician. Although in one frequently quoted passage he compares thought as a function of the brain with bile as a secretion of the liver, he was by no means a materialist. It is true that all functions, whether moral or physical, arise from the sensibility of organs to stimuli; but the cause of sensibility itself cannot thus be explained, and indeed lies beyond our powers of investigation. It is clear, however, that vital feelings and instincts are innate; they are not mere reactions to stimuli. Cabanis wishes to combine physiology and psychology in a philosophical investigation that will do justice to both, proceed in a scientific way, and not attempt to pass beyond the limits of what can be known and described into the regions of mere speculation.

Maine de Biran (1766–1824), now recognized to have been the profoundest French philosopher in the nineteenth century before Comte, was a man of public affairs who published little during his lifetime. Influenced by Leibniz, he recognized the effects upon consciousness of affective impulses and processes of which we are unaware. His views of unconscious mental processes show some similarity to those of Schopenhauer, but were reached independently. The foundation for

knowledge is neither external perception nor authority, but immediate consciousness of our own self-activity in interaction both with external stimuli and affective impulses. In his later years he sought a higher support in religious mysticism for what he called "the life of the spirit." His friend André Marie Ampère (1775-1836), best known for his important discoveries in physics, agreed that the immediate consciousness of the self is the starting point for philosophy, and he attempted to correlate his scientific studies with psychological investigations. Concepts of relation, such as causality, number, time, and space, are absolutely valid and afford knowledge of the real world (as opposed to Kant, whom, however, he admired in many ways). He made important contributions to the philosophical interpretation of the sciences, of which he worked out a somewhat complicated classification; the latter, however, has had less influence than that of Comte.

Victor Cousin (1792-1867), a great educational leader, was the most popular and influential philosopher of the period. He was an inspiring teacher and an interesting writer. He introduced the study of the history of philosophy into the secondary curriculum in France, edited what long remained the standard edition of the works of Descartes, and translated Plato. He endeavored to combine the methods of Locke, Reid, and Kant in an "eclectic" manner that would conserve the merits and overcome the inadequacies of each. In his metaphysics he is also indebted to Plato, Plotinus, Descartes, Schelling, and Hegel. In fact, he honestly tried to extract what is of merit in every philosopher before him and to arrive at a synthetic viewpoint. The result was an idealistic pantheism, profounder than the eighteenth century philosophers, and on the whole less extravagantly speculative than the idealisms of the post-Kantian schools of Germany. His lectures on *the True, the Beautiful, and the Good*, were translated into English and long were widely read. His philosophy was constructive, and eloquently stated. His

thought became more restrained as he grew older, and was well suited for the needs of the times. He and his followers—the eclectic school—maintained a practical compromise between the spirit of the Enlightenment and the traditionalistic and clerical reaction, avoiding the exaggerations of each. We have little, however, to learn from their school today.

Claude Henri de Rouvroy, Comte de Saint Simon (1760–1825), was the most original of the social reformers of the period. A veteran of the American and French Revolutions, Saint Simon (as he is usually called) at one time sought to draw up a new Encyclopaedia which would do for the nineteenth century what that of Diderot had done for the eighteenth, but would be more constructive.

He wished a new organization of society in which the intellectual and economic conditions of the working classes would be improved. To effect this, there must be further advances in the sciences, which must become positive in character and coördinated in a positive philosophy. Society must be reorganized under the leadership of a temporal power and a spiritual power, distinct from each other, as was the case in the Middle Ages. The temporal power must pass from noblemen and soldiers into the hands of manufacturers and producers, while the spiritual power must belong to scientists and artists. All men must work; there must be no idlers. There must be a new Christianity, concerned, not with preparation for a future life, but with the physical and moral betterment of the humbler classes in this world. This enthusiastic nobleman, who had lost his fortune, but continued to have faith in the advent of a better social order, succeeded in interesting many of the pupils in the Polytechnic school. Among them was Auguste Comte, most of whose important ideas had originally been suggested to him in an undeveloped form by Saint Simon. Among the classical modern philosophers by whom Comte was influenced, Bacon probably gave him his regard for induction, Descartes his reliance on mathematical methods and systematic organiza-

tion of thought, the men of the French Enlightenment his enthusiasm for progress, and Hume his positivism.

II. LIFE OF COMTE

Auguste Comte (1798–1857) was the oldest son of an humble clerk in the revenue offices at Montpellier, a Royalist and devout Catholic. Auguste outshone all the other pupils in the local lycée, and passed first in all the province in a competitive examination for admission to the Polytechnic school at Paris when only fifteen, too young to be admitted until the following year. At this school, under the best teachers in France, he studied mathematics, physics and chemistry. He drew up a petition which he and the other boys signed, shortly before the battle of Waterloo, asking that they might assist in the national defence. Napoleon visited the school and was loyally welcome. Not long afterward, subsequent to the Bourbon restoration, the boys were annoyed by one of their tutors who, squinting in an arm chair, put his feet upon a table while he conducted his classes. When Comte was called upon to recite, he assumed a similar position. When rebuked, he replied, "Sir, I thought it right to follow your example." The boys drew up a petition against the teacher. The authorities, who regarded the Polytechnic as a seat of republican insurrection, saw a chance to maintain discipline and expelled the offenders. Thus Comte when only eighteen lost the opportunity to get an education with public assistance. Thereafter while he pursued his studies he had to support himself as best he could, with what scanty aid his father was able to give him. Throughout his life poor Comte was always offending the officials in some way, and in consequence losing financial support which he needed and deserved.

For six years Comte was a disciple of Saint Simon, to whose publications he contributed articles, maintaining himself by tutoring, attending what public lectures he could, and

educating himself largely by private reading in mathematics, physics, chemistry, biology and the social philosophy of Saint Simon and his group. In 1824 Saint Simon published a *Worker's Political Catechism*, which included an essay by Comte with which he did not entirely agree. The two parted company thereafter. Comte sent copies of this essay—*A Plan for the Scientific Work Necessary to Reorganize Society*—to famous intellectuals of the time, among whom were Thomas Jefferson and James Monroe. The essay, which anticipated in outline much of Comte's later philosophy, attracted the attention of many of the distinguished men of the time, such as Guizot, Poinsoy, von Humboldt, and the Duc de Broglie. Comte at once became famous.

In the casual way in which lonely youths in Paris met young women, Comte had fallen in with Caroline Massin, an orphan who nominally supported herself as a needle woman, but already had irregular relations with men. She and Comte were eventually married, and she seems to have been devoted to him in her singular way. She stood loyally by him when he had a severe nervous breakdown, and restored him to sanity. She was ambitious for him to advance professionally in ways that would provide them with a comfortable income, but would interfere with his scholarly investigations. When they were financially hard pressed, she wished to contribute to their living by earnings derived from relations with other men. To this Comte would not agree. They finally separated, but she continued to take a sincere interest in his career, and he contributed generously to her support out of his own meagre income.

Between 1830 and 1842 Comte wrote and published his chief work, *Positive Philosophy* (*Cours de philosophie positive*), in six volumes. He thought out the contents of each volume in solitary walks, delivered them in public lectures without notes, and finally put them down in writing with great rapidity. In a short work, *Discourse on the Positive Spirit*, he set forth in a more popular form the outlines of

his philosophy at that time; this book is often recommended as the best for beginners.

Denied a professorship at the Polytechnic school, notwithstanding his brilliant qualifications, he supported himself by makeshift jobs; he served as a tutor at the Polytechnic and at the Institution Lavelle, travelled for some months each year in the provinces as coach and examiner for the Polytechnic, and gave instruction to private pupils. He presented his own positive philosophy in public lectures which made him well known, but for which he received no financial remuneration. Unluckily he finally offended the officials of the Polytechnic by minimizing to some extent the importance of mathematics in one volume of the *Cours de philosophie positive*, and in consequence all his sources of income presently dried up. Littré, a French admirer, John Stuart Mill, a British sympathizer, and other French and English friends came to his rescue, and raised funds annually for his maintenance, varying from £120 to about £300. This made it possible for Comte to devote his entire time after 1848 to his philosophical studies.

In 1844 Comte became acquainted with Madame Clotilde de Vaux, young and beautiful wife of an embezzler who had disappeared from France to escape criminal prosecution. Divorce being impossible for either Comte or Clotilde by the laws of the time, they were unable to marry. While she esteemed Comte as a friend, Clotilde did not love him, and she was a virtuous woman who would in no case have entered into an irregular relation. She had intellectual interests and some literary gifts, and wrote a novelette and some short poems that were published before she died of consumption in the spring of 1846. Comte was absolutely devoted to her while she lived, and he cherished her memory for the rest of his life. Every morning and evening he spent a regular time in imaginary communion with her which he called prayer, and every week he visited her tomb. His philosophical outlook was considerably changed thereafter. He now

believed that a new religion must be found to conserve the values of Catholicism without its doctrines. A man should serve Humanity as a substitute for God; he should meditate upon Humanity with the image of the woman who has meant most to him in his life before his mind, in place of the Virgin Mary. Philosophy cannot be wholly intellectual; it must be complemented by love, feeling, devotion. This changed attitude became apparent in his second principal book, *The Positive Polity* (*Système de politique positive*), which appeared in four volumes between 1851 and 1854. Many of his previous supporters did not like these religious innovations, although they are not on the whole inconsistent with his previous philosophy, but a supplement to it.

Living quietly in a modest apartment, where he was faithfully served by his housekeeper Sophie Bliaux, together with her husband Martin Thomas after her marriage, August Comte became the leader of a small but earnest group of followers—the Positivists—who looked forward to the prevalence of the new philosophy which should reorganize society, and inaugurate the religion of Humanity. Comte's apartment has been faithfully preserved as he left it when he died, and Positivists still make pilgrimages to it.

III. POSITIVISM AND THE LAW OF THE THREE STAGES

Comte's life ambition was to reorganize society in a way that would be of lasting benefit to all classes of the people, that would insure universal peace between nations, prevent economic struggles within each nation, assure to all a decent livelihood provided they do their part, and further the advance of science and culture in every way. The proper approach to his philosophy is to regard him as essentially a social reformer. In his earlier thought, social reformation is to be effected primarily through the development and practical application of the sciences on a positive basis. This is the point of view of the *Positive Philosophy*. In the later

Positive Polity such reorganization is seen to imply emphasis on ethics and religion as he conceives them.

Comte agrees with Hume that it is impossible for us to discover underlying causes or substances. We can observe only the facts that are manifested to our senses. We can, however, do this. We can take note of the circumstances under which phenomena occur, and so formulate the *laws of phenomena*. The law of gravitation is an excellent illustration. We do not know what matter really is, but using the attraction of bodies to the earth as a standard of measurement, we can formulate a law that is uniform, so far, at least, as terrestrial phenomena are concerned. The difference between the positivism of Comte and the skepticism of Hume is one of emphasis. Comte is as skeptical as Hume in regard to the possibility of gaining any knowledge of the unknown causes of sensations, or of what Kant called things in themselves. On the other hand, Comte sees more clearly than Hume did that after all science can tell us a great deal. It can tell us what has occurred; it can formulate laws that will enable us to predict what will occur. Knowing these laws we can plan for the future, and in some cases we can alter the course of events, more effectively control conditions about us, and plan a better society. In contrast to skepticism which calls attention to what we cannot know, *positivism* bids us accumulate all the knowledge that actually is accessible to us, and use it for the advancement of mankind. The chief obstacles to social reforms are: first, not all the sciences have yet reached a fully positive basis; and secondly, a new science, which Comte first called "social physics" and later named "sociology," a word of his own coining, has to be created.

One of Comte's fundamental doctrines is *the law of the three stages*, the theological, metaphysical, and positive stages. In the *first* of these, men who are conscious of their own power of volition tend to attribute all events about them to the volitions of agents more or less like themselves. This

process begins with what Comte calls *fetichism* (the more common designation now is animism): everything is supposed to be alive, and to act in accordance with its own will, so that it is necessary that powerful spirits be propitiated. The next step in the evolution of the theological stage is *polytheism* in which the controlling will is attributed in each domain of nature like the sky, the sea or the earth, to a single deity. Finally, all these deities are fused into one God, who rules over all things; this is *monotheism*. The theological stage was dominant among primitive men and, continuing down through antiquity and the Middle Ages, is still widely prevalent. However, even the most primitive people are probably not entirely in the theological stage; they look at some events as following others in a natural way without the intervention of spirits, and to that extent are already in either the metaphysical or the positive stage. In the main, however, the theological stage prevails among primitive peoples in the form of fetichism; it was gradually replaced by polytheism in early cultures; it gave way to monotheism with the centralization of authority in the Roman empire, and under the pope in the Middle Ages. Political government in this stage of thought is that of absolute monarchs. Warfare is frequent. Comte thinks that there is a rough correlation between the social and political organization of a people and the way that nature is interpreted by them.

Gradually the theological stage is replaced by the *metaphysical* stage. The latter stage is not very logical; it merely marks a transition. In it the previous spirits or gods are depersonalized and become abstract forces. Much of early modern science was of this character: men vaguely thought of "chemical" or "vital" forces operative in things about them, which caused things to change in appearance. These many forces in due course tended to become consolidated in a single force, called "Nature." "Nature" does this and that; the "laws of nature" are good; etc. Comte believes that the

men of the Enlightenment thought mostly in such metaphysical terms. They carried them over into their social philosophy and believed in fictions like the "social contract," "natural rights," "the sovereignty of the people." They overemphasized egoism and individual rights, and did not sufficiently recognize altruism and duties to society. They however made important advances, like the insistence that warfare should be limited to the defensive, which is at least a step in the direction of eliminating it altogether. They were great believers in religious toleration and in the overthrow of all traditional authority in state and church by popular revolutions. Such an attitude might be defensible for a transitional period, in which decadent institutions need to be destroyed, but it cannot in the long run result in anything constructive. Comte had no confidence in democracy and popular government, belief in which he places in the metaphysical stage.

The third and ultimate stage is of course the *Positive* stage. In this, scientists content themselves with observation of the laws of phenomena, without any longer attributing them to unseen and unknowable spirits or abstract forces. It might be supposed that ultimately all the laws of phenomena will be reduced to one single law, possibly the law of gravitation, but Comte thinks that such reduction will always be impossible; it is certainly so at present. The political and social constitution of the positive stage will be discussed later.

At present society is confused, because part of the time men are thinking in terms of one of the stages, and the rest of the time in terms of others; this is true both in natural sciences and in social subjects. Order and progress cannot be attained and reconciled satisfactorily until thought and life are brought completely upon the positive stage.

IV. THE CLASSIFICATION OF THE SCIENCES

It is possible, Comte affirms, to arrange the sciences in an *hierarchy* in the following order: mathematics, astronomy, physics, chemistry, biology, and sociology. Comte, it is to be noted, is here discussing merely the *abstract* sciences, not applied sciences dependent upon them, like medicine and engineering. This is the order in which each science *historically appeared*, and also that in which it has *attained the positive stage*. Each science is *logically more simple* and less complex than those that follow it. Furthermore, each science is *more universal* in its application than those that follow: mathematics applies to everything, astronomy to all bodies; we do not know whether physics and chemistry apply to other than terrestrial phenomena; biology is concerned only with living beings; sociology is confined to men, and to a limited extent to the higher animals. Each science is more *exact*, to a larger extent uses *deduction*, and is less dependent upon observation and induction, than those which follow it; although, to be sure, all had to begin with observation.

The reason for the historical order is that each science is *dependent* upon those that precede it, and could not originate until they had reached a certain stage of maturity. No one could master any science without some acquaintance with those earlier in the series. (Perhaps this accounts for Comte's giving extended lectures upon astronomy to workmen who were interested in social reforms.) Comte insists merely that this is the general order in which the sciences have arisen. He recognizes that there is some mutual interaction between them; *e.g.*, new discoveries in physics may lead to further developments in mathematics.

Comte is stoutly opposed to all attempts at *reductionism*, or, as he calls it, "materialism": it will always be impossible to reduce the phenomena of life to chemistry, or those of chemistry to physics, or those of physics to mathematics, be-

cause the phenomena of each science are governed by new laws of its own, in addition to those of the simpler sciences that have preceded it. Sociology, the highest and most concrete of the pure sciences, deals with the most complex and unstable phenomena of them all; for this reason it is the most difficult, and has been the latest to arise.

In this classification of the sciences, psychology is not mentioned. Comte is extremely interested in psychology, and discusses it at length, bringing what he says mostly under biology, but partly under sociology. He believes that nothing can be learned by introspection; either mental processes must be studied in connection with the functions of the brain, or else the conduct of men must be observed in their social activities. Comte seems to be a forerunner of the present behavioristic school in psychology; although his interpretations in detail have long been out of date, accepting as they do the faculty psychology and the phrenological theories of Gall, then current in France.

Logic might seem to deserve the first place in the series; every scientific investigation conforms to the laws of logic. Comte understood the difference between deduction and induction and the proper use of hypotheses, but he apparently did not think it necessary to treat the methods of thought as a separate science; one reason may have been that much that was then written under the caption of logic was psychological, and Comte had, as we have seen, his reasons for excluding psychology from the list. Ethics he regarded as a part of sociology when he developed the *Positive Philosophy*; later, in the *Positive Polity*, he added ethics, including his version of religion, to the list, following sociology, and thus put it at the summit of the hierarchy.

Philosophy naturally does not appear in the list of sciences. Metaphysics in the old sense of the study of substances, causes, and other ultimate principles belongs to a stage of thought that must be superseded. His own positive philosophy consists of the systematic interpretation and classifica-

tion of the sciences and the development of their implications for social reformation. All that he ever wrote he regarded as Positive philosophy, which builds upon facts, upon what is *real*. It is *useful*, and aims at the betterment of life. It deals with what is *certain* and indubitable; philosophers of the earlier stages have been in constant doubt and dispute with one another; in fact, men can feel no certainty in any subject until the positive stage has been reached. *Positive* means what is *precisely determined*, in contrast with the vagueness of previous thought. Positive philosophy is *affirmative* and constructive, in opposition to the negative destructiveness of the transitional metaphysical stage. Again, positive philosophy is *relative*, not absolute. It recognizes that there has been an evolution in science as well as in society. It describes how phenomena occur and can be predicted; it refuses to ask their ultimate nature. It does not pretend to discover final causes or purposes in nature. It accepts the teachings of Hume and Kant that we are only human and can regard the world simply from our point of view, and not as it exists in itself. The world could exist without us, and not we without it. Yet we are not mere products of nature, as the materialists claim; while dependent upon the world, we have some spontaneity of our own, and are not automata. This is true to some extent of all organisms; Comte rejects Descartes' mechanistic interpretation of life.

V. SOCIOLOGY

Sociology, the new science to which Comte gave its name, and which he endeavored to establish, as he conceives it includes much of what we should call social psychology, economics, political science, ethics and the philosophy of history. All these subjects are of course interrelated, and for some purposes it was advantageous for him to treat them under a single head. Following the analogy of the older sciences in his list, a distinction could be drawn in sociology

between *statics* and *dynamics*. Geometry represents the static side of mathematics, in contrast with mechanics, which is dynamic. Anatomy views organisms structurally and hence statically, while physiology studies their functions dynamically. *Social statics* investigates the constant conditions of society and stresses *order*; while *social dynamics* traces the development of society and emphasizes *progress*. We want both order and progress; we cannot have the latter without the former, as Comte's generation was painfully aware in view of the recent history of France. So sociology must study both statics and dynamics. The separation of the two in Comte's discussion is sometimes forced, and yet it is not without significance.

The study of *social statics* reveals the close connection that exists at any time between the ideas, customs and institutions of a country and their mutual interaction; if this seems a trite statement now, Comte was one of the first to bring it to general attention. Influenced by Hume and Adam Smith, Comte believes that society did not originate from coldly intellectual and egoistic calculations, as Hobbes, for instance, had thought, but rather from an instinct of social *sympathy* for which Gall had located a seat in the brain. Sympathy has its origin in the differentiation of the sexes among the animals, and their care for their offspring. It is true that even in men egoistic instincts were originally stronger than social sympathy, yet the latter is coming into increasing strength with the development of intelligence and family life. For the family, not the individual, is the real social unit: in it the individual learns to live and work for others.

Larger social consolidations than the family are more difficult to sustain, but they are indispensable. As the individual in the light of positive philosophy shall come to realize that he is a single member of the race, he will appreciate the importance that society has for him and see that development is possible only by mutual coöperation. He will come

to feel himself a co-worker with other men in a great social whole. Even the lowliest occupation will acquire dignity as the worker comes to realize that through his work he is sharing in common tasks for the general welfare. Comte seems to think that the problem is primarily intellectual and moral: if everyone can be led intellectually to recognize the common good and the necessity for coöperation to bring it about, he will be morally inspired by the feeling of a common humanity. This attitude once having become established by ideas generally shared and customs generally observed, the development of appropriate institutions will readily follow.

There can be no general concord in society so long as part of our thought and life remains on the theological and metaphysical levels and only part has reached the positive stage. All of us must adopt the positive attitude through and through. Moreover, the ordinary layman cannot think out the details of the natural sciences for himself; he accepts the authoritative guidance of experts. The same holds for the science of sociology; in this science also, experts will have to guide him. To effect the transition to the positive stage in society, therefore, a moderately short and progressive dictatorship may be necessary which will guide public thought and sentiment in the right direction. This probably explains his approving in 1852 the recent *coup d'état* of Louis Napoleon Bonaparte, not realizing that this *coup* was not going to be followed by the inauguration of positivism, but by a revival of imperialism. At one time also, he had hope of the Russian emperor, Nicholas I, who, he fancied, was wisely regulating the admission of books to his dominions. Comte's judgments of the intentions of the rulers of his time were of course erroneous. (Since Comte's time the world has had considerable experience with dictators. It may be doubted whether any dictator will ever effect the triumph of genuine science, altruism, and social science in his dominions, and wisely guide the thoughts and sentiments of his people. With

the apparent failure of democracy in the French Revolution, however, one can understand why Comte thought that a dictatorship might be desirable in a transitional period.)

Social dynamics is largely a further interpretation of the law of the three stages. Corresponding to the intellectual levels which these signify, are different forms of social and political organization. The theological stage is attended by *military organization*; warfare is frequent; discipline and obedience to law are enforced; there is effective division of functions between the soldiers and the slaves whose labor supports them. The metaphysical stage is one of *transition*, in which industry is becoming better conducted and more productive, and the soldier is sinking in importance in comparison with the industrialist, although he is still needed for defensive warfare. The middle classes are asserting themselves and demanding political rights. The jurists have to weigh the claims of each class and make adjustments. The positive stage will see *industry triumphant*; the proletariat will realize that their difficulties cannot be solved by revolutions, and they will look to positive philosophy to procure for everyone opportunities for mental development and the right to work. This, therefore, will be an era of *peace*, free from internal revolutions and external wars.

The social organization which is to come in the positive stage, Comte sketches rather vaguely. Business, industry and agriculture—all the larger productive processes—will be run by the *patricians*,—bankers, entrepreneurs, large land-owners, and the like. Big business has larger resources and is more competently managed than can be true of little businesses. The patricians will be inspired with regard for common humanity; they will recognize their responsibilities, and be faithful servants of society. It will be their duty to provide employment and educational possibilities for all.

The intellectual and moral leadership will be in the hands of the *priests*,—i.e., scientists, philosophers, men of letters, artists, and the leaders of Positivist religious groups. They

will be men of small incomes, but great prestige because of their scholarship and moral insight. Their influence will be so great that their protests will prevent the patricians from abusing their power, or the workers from becoming violent and unrestrained. The authority of the priests will be purely moral, but public opinion will support them and make them triumphant whenever they deserve to be so.

An important spiritual influence will be exercised by *women*. Comte is by no means a feminist who advocates women's rights. But he thinks that women ought to be respected and esteemed, and that their companionship and example will make men more kindly and sympathetic, and strengthen altruism.

The *ethics* of the positive stage is simple. Its emphasis is upon altruism and common love of humanity. Every individual in each class of society will be inspired by his love and devotion to humanity, so that he will be a co-worker in the furtherance of the common good. The fundamental nature of man, which originally was egoistic, cannot be radically transformed; but through increasing intelligence and sympathy men can become more altruistic and acquire the sentiments requisite for the success of the new society.

VI. RELIGION

In the *Positive Polity*, Comte puts ethics, by which he means chiefly his own new religion of Positivism, at the summit of the hierarchy of the sciences. He, like many of his contemporaries, could not forget the many excellent features in the Roman Catholic religion of his parents in which he had been trained in childhood, and he admired the moral authority and order which the Church had maintained in the Middle Ages. Positivism must conserve the real values for which the Church has stood in the past.

Rejecting all metaphysics, it was impossible for Comte to accept the existence of God as an agency behind the phe-

nomena whose laws it is the task of the positive sciences to formulate, and of positive philosophy to interpret and consolidate. On the other hand, men need to find a substitute for the God to whom they have yielded their highest loyalty and devotion in the past. This substitute Comte finds in Humanity—the Great Being (*Le Grand Être*), which includes all who in the past have labored for the betterment of mankind. We should meditate upon Humanity, at regular times in public meetings and in the privacy of our closets, in place of prayer to God. Humanity transcends us as individuals; it endures from age to age; it includes all noble souls that have ever lived and worked for mankind; it should be the object of our highest devotion. Hymns should be sung to Humanity and public religious services conducted in her honor.

Other features of Catholicism were imitated by Comte in his new religion. Humanity becomes one member of a Trinity; the other two are the Grand Fetich (the earth) and the Grand Medium (space) in which the earth moves.

As a substitute for the calendar of the Christian year, with its days commemorative of different saints, Comte proposes a Positivist calendar of thirteen months, each named after some great man, and each week in the month after another. The services that each great man has rendered are to be recalled at these times, and inspiration to better living gained. On the whole, Comte's selection of names for the calendar seems good; at any rate, Positivists believe them to be personalities whose lives were more important and whose value to mankind is more significant than most of the saints in the Catholic calendar.

Comte does not believe literally in personal immortality. The Catholic church exaggerated egoism, and made each individual unduly concerned for his own salvation in another life. The only immortality open to us is that of memory in the minds of those who shall come after us, whose lives shall have become better because of our efforts. Such immortality

is open to all; however humble a person may be, if he makes his own modest contribution to the general good his influence will continue, and he will deserve to be considered a participant in Humanity. Such a prospect of immortality induces altruism, not egoism; service to others, not selfish perpetuation of individual delight. This thought is expressed in the well-known poem by George Eliot beginning:

“Oh may I join the choir invisible
Of those immortal dead who live again
In minds made better by their presence.”

Positivist societies have continued to exist since Comte's time, chiefly in France and England. They meet for religious services, and carry on activities similar to those of a church. They have always been keenly interested in movements for social betterment. Although never large in numbers, some of their leaders have been men of note—among those in England have been Frederic Harrison, Richard Congreve, E. S. Beesly and J. H. Bridges.¹

VII. THE SIGNIFICANCE OF COMTE

Comte's most noteworthy contributions are the law of the three stages and the classification of the sciences. Almost everyone would admit that these contain a certain amount of truth. He is right in maintaining that the proper effort of a science should be to ascertain the laws of phenomena and not to seek for inaccessible substances, essences and causes. He also deserves commendation for seeing that at least one of the chief tasks of a philosopher should be to ascertain the methods common to the different sciences, and to organize their results into some kind of synthesis. This task is becoming increasingly difficult with the growing complexity of the sciences, but it is no less desirable.

Comte also deserves credit for taking philosophy seriously, for conceiving that its mission should be to indicate in the

light of science what can and should be done in the direction of social betterment. Here the specialists in the different sciences are more competent as to details, but it remains the task of the philosopher to seek a more synthetic vision, than specialists are disposed to supply.

Everyone today would agree with Comte that metaphysics should be excluded from positive science. And there is a school of logical positivists of the twentieth century who believe that the study of metaphysics should be abandoned altogether. However, the majority of philosophers of the present time still believe in the value of metaphysics as a philosophical undertaking. The great problems as to the ultimate nature of the universe, the relation of mind to matter, the possibility of knowledge of the external world, the freedom of the will, the respective claims of mechanism and teleology, and like questions continue to be of absorbing interest to thoughtful men. Even though no solutions have yet been proposed on which philosophers can agree with unanimity, these problems are at least becoming better understood, and many of the proposed solutions are enlightening and suggestive.

In regard to the philosophy of religion. All who see certain values in religious life and experience will concede that the religion of Humanity conserves some of these values in an imperfect way, and that it is much better than no religion at all. It is therefore worthy of consideration by those who think it impossible to come to more affirmative conclusions. However, most of those who have worked in the philosophy of religion believe that a reasonable case—if not absolute proof—can be made for the existence of God and some form of human personal immortality richer in content than Comte was willing to concede. The weight of evidence, at least, is believed by many of us to lie in these directions. On the practical side, it is believed that men will be more confident in their efforts at social as well as personal improvement if they believe that they are sustained in their efforts by assist-

ance from God, and encouraged by the prospect of a future existence in communion with Him.

Comte did a valuable service in the introduction of the new science of sociology. He probably has the best claim of anyone to be regarded as its founder, and many points to which he was perhaps the first to call attention have become part of the stock in trade of every investigator in the field.

VIII. FRENCH PHILOSOPHERS SINCE COMTE

In the interval between Comte and Bergson, the most outstanding leaders were two men of letters whose publications and addresses appealed to thoughtful people in search of a philosophy of life in a new and troubled age. Ernest Renan (1823–1892), originally trained for the Roman Catholic clergy, broke away from the dogmas of the church and sought a new outlook, largely religious, that would replace that taken by those who had left the church during the Enlightenment. He helped thinkers in his generation to estimate the future possibilities of science for such purposes, and to adopt an intelligent and appreciative attitude toward the evolution of the ancient Hebrew religion, the life of Jesus, the origins of Christianity, and the Stoicism of Marcus Aurelius. He called attention to the aesthetic and moral values of religion, and affirmed his faith in God, goodness, beauty, and the dignity and possibilities of man. During middle life he favored a mildly aristocratic society in which leadership would be in the hands of the cultured and the competent, while in his last years he tended to return to the hope of his youth that democracy may become enlightened and responsible.

Hippolyte Taine (1828–1893) interpreted the history of English literature and the historical origins of contemporary France; he also wrote on the philosophy of art and the political and social problems of the time. Facts in these fields, he believed to be as capable of explanation in causal terms as

physical phenomena. In every historical event the three primordial causes of race, heredity, and time can be discerned. His methodology is largely derived from the sensationalism of Condillac and the British empiricists, and yet he is appreciative of the wisdom of Spinoza and Hegel. Unwilling to idealize mankind, he seeks to understand them as they are, objectively and realistically, and his verdict is not very favorable. His influence is said to be partly responsible for the rise of rather sordid realistic tendencies in some of the fiction and art of the time.

The more technical French philosophers can be roughly distinguished by whether their thought is more metaphysical or positivistic in spirit. Among the former, Felix Ravaisson (1813-1900) called attention to the importance of Maine de Biran, by whom he was considerably influenced, and found all nature to be the product of spiritual activity, and ultimately of God. His doctrine that matter is habit, fossilized will, influenced Bergson. Charles Secrétan (1815-1895), a Swiss Protestant, was an idealist who believed in freedom and the categorical imperative; in later life he became interested in the solution of social problems from a philosophical and Christian standpoint. Jules Lachelier (1832-1918) followed Kant in affirming that the laws of thought are the constitutive laws of nature, but he insisted that on progressively higher levels in science, art, and religion we can come to know ultimate reality itself, as spiritual and grounded in God.

Charles Renouvier (1815-1903) presented a new form of "critical philosophy" which got its start in Kant and Leibniz, but diverged from both in many ways. Renouvier makes a new list of categories. He solves the antinomies by claiming that the world has an absolute beginning in time and limits in space, that free will is genuine, and God finite. He published a journal, and had a considerable number of followers, among them William James (especially in his youth). Émile Boutroux (1845-1922) argues that since the laws of the nat-

ural sciences are contingent, there is change and spontaneity in the universe, and human freedom is real. In some ways his thought is a connecting link between Renouvier and Bergson. A. Fouillée (1838–1912) believed that, more ultimate than either matter or mind, are “idea-forces” (*idées-forces*). Ideas are inseparable from action,—the motor theory of consciousness. This led him to an ingenious metaphysics as well as to applications in social philosophy and the theory of knowledge. His nephew and pupil J. M. Guyau (1854–1888), a thinker of brilliant promise who died young, argued eloquently for a social ethics and “non-religion of the future” that would be liberated from dogmatic obligations and sanctions, and open the way to a free life of beauty and progress guided by a social science based upon a scientific psychology.

Most eminent among the orthodox Roman Catholic philosophers was Desiré Mercier (1851–1926), who organized a brilliant school of new scholasticism at the University of Louvain in Belgium. Jacques Maritain (born 1882) and E. H. Gilson (born 1884) are contemporary Catholic philosophers who are making the spirit of medieval philosophy better understood, and who believe that the proper approach to philosophy is still to be found from the Thomistic standpoint. Ernest Dimnet (born 1866) writes charming and sensible popular books on philosophy which are promptly translated into English and widely read.

The positivistic current descending from Comte, which emancipated science from metaphysics, is discernible in the works of Claude Bernard (1813–1878) a physiologist, Pierre Berthelot (1827–1907) a chemist, Theodore Ribot (1839–1916), who made psychology a positive science in France, and Henri Poincaré, a mathematician and authority on scientific methods. There have been many eminent French sociologists since Comte. A. Espinas (1844–1922) wrote a valuable book on animal societies. G. Tarde (1843–1904) formulated the laws of imitation and suggestion and group psychology. Émile Durkheim (1858–1917), a brilliant sociological phi-

losopher, showed how "collective representations," which no one individual has thought out independently, dominate the life and thought of primitive peoples, notably in religion, and continue to do so to a large extent among ourselves. He believed in studying morality as a function of group life, and in making sociological inquiries into the circumstances and conditions in which men hold themselves responsible for their conduct rather than in considering abstract metaphysical problems like the freedom of the will. L. Lévy-Bruhl (1857-1939) also believed that ethics should be attacked wholly from a sociological standpoint. He made valuable studies of primitive mentality and the origins of religion. There are a multitude of younger men, influenced by Durkheim and Lévy-Bruhl, who study moral ideas and customs in the light of social evolution rather than by a metaphysical approach; among them are A. Bayet, who in a series of volumes has been publishing an elaborate history of the evolution of French morality starting with the ancient Gauls. G. Belot (1859-1939) has published a valuable system of ethics from a moderately positivistic standpoint.²

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CHAPTER XVIII

JOHN STUART MILL

I. THE UTILITARIANS

The most significant philosophical movement in Great Britain during the opening decades of the nineteenth century was led by the Philosophical Radicals, or Utilitarians. They were children of the Enlightenment, thorough empiricists, and enthusiastic believers in the practicability of social progress guided by increased scientific knowledge. They employed methods imitative of the more exact sciences in their investigations in ethics, political science, political philosophy, law, psychology, logic, and political economy, in all of which they made lasting contributions. They were individualists who insisted upon complete liberty of thought and action; every man is the best judge of his own interests, and he should be free to act as he pleases, so long as he does not molest others. All men ought to be educated so that they will desire the general good. This good is *universal happiness*, conceived in hedonistic terms as pleasure. They believed, with Hume, that whatever affords pleasure has *Utility*. So the school ultimately became known as the Utilitarians. Scholars rather than politicians, they wrote books and made contributions to newspapers and reviews through which they enlightened public opinion in the direction of social reforms. They helped to secure the passage of the Reform Bill, the revision of the Poor Law, simplifications of laws and court procedure, repeal of the Corn Laws, emancipation of slaves in the colonies, more kindly treatment of criminals, extension of the suffrage, accessibility of elementary education to the children of the poor, and other

reforms designed to improve the condition of the masses, whose hardships had been aggravated by the industrial revolution. The Utilitarians guided the humanitarian spirit of the age in directions scientifically sound and practically useful. Regarding ultimate problems in metaphysics and the philosophy of religion, they were usually either skeptics or positivists.

The founder of the school, Jeremy Bentham (1748-1832), a wealthy man with a benevolent spirit, devoted his life to the movement. He developed the conception of Utility in a more sweeping and thorough going manner than Hume, making numerous practical applications of the doctrine. He replaced the "fictions" (as he considered them) of natural rights and the social contract with the "fact" of Utility. Man by nature always seeks what will bring him pleasure and enable him to avoid pain. Though naturally selfish, man is led to seek the happiness of others as the result of *sanctions* of various kinds. *Physical* sanctions—the environment and the laws of health—force him to industry and sobriety. *Political* sanctions—fear of the punishments of the law—restrain him from actions contrary to the public interest. *Moral* (or, as we now more often say, social) sanctions lead him to act in ways that will meet with the approval of his fellow men. *Religious* sanctions deter him from conduct that he believes would bring him divine punishment. The common good is "universal happiness" (*i.e.*, pleasure), in which "each should count for one, and none for more than one." Legislation can through the political sanction, and public opinion through the moral sanction, impel men to act benevolently. Such a philosophy is obviously realistic in the selfishness which it attributes to human nature, while it is optimistic in its hope that men thus constituted can be induced to act in altruistic ways. Bentham proposes to measure the worth of different actions by means of an "hedonistic calculus." Each act is to be considered together with its consequences—chiefly the intensity and duration of the

pleasure it affords minus the pain by which it is attended. Bentham was successful in showing how the laws in various respects—criminal law, contracts, property, etc.—ought to be simplified in order that they might produce the greatest happiness in the long run to most people, and his views did much to bring about improvements not only in the laws of England, but in those of several continental European countries, as well as of the Latin-American republics which were gaining their independence during the period when Bentham's philosophy was exerting its greatest influence. His *Principles of Morals and Legislation* is the most interesting of his books, from the standpoint of the general reader.

The most gifted of the numerous thinkers influenced by Bentham was James Mill (1773–1836), a Scot whose religious convictions made it impossible for him to remain in the ministry of the Presbyterian church for which he had been educated. With difficulty he earned a living for his large family with his pen, until he became famous as the result of a *History of India* on which he had labored for many years. Although in this work he criticized the methods of the East India Company, that organization was broad-minded enough to appreciate his understanding of their problems, and thereafter gave him permanent employment in the conduct of the correspondence from their London office. This gave him training in attacking practical problems. James Mill's principal contributions to Utilitarianism were in the field of psychology. Developing the doctrine of the association of ideas further than Hartley or anyone else had done, he attempted to explain all mental phenomena by association, and to reduce all forms of association to that of contiguity. His *Analysis of the Human Mind* was thought by the Utilitarians to be of practical importance, since it afforded a scientific justification to Helvétius' doctrine that social education has unlimited possibilities. It is only a question of developing the right association of ideas in everyone, and progress will be assured. Individual and

racial deficiencies can be ignored. James Mill also wrote upon political and economic problems, and influenced the statesmen of his time. Besides Bentham and James Mill, the two most important Philosophical Radicals before John Stuart Mill were Thomas Malthus (1766-1834) and David Ricardo (1772-1823), both significant for economic doctrines.

II. LIFE OF JOHN STUART MILL

John Stuart Mill (1806-1873), greatest of the Utilitarians, was the eldest son of James Mill. His education, planned by his father with the advice of Bentham, was unique. He was taught Greek from the time that he was three years old, arithmetic and English grammar almost as soon, and he began Latin at eight. He read a great deal of Greek and Roman literature in childhood and tackled logic and economics while quite young. Instead of sending him to school, his father educated him personally, and John learned his lessons the more thoroughly because he had in turn to teach them to his younger brothers and sisters. He was not permitted merely to memorize. He was constantly given original problems, and nothing was explained to him that he was capable of thinking out for himself. He never had a chance to play with other children; his recreation consisted chiefly in walks with his father, and in reading works of history, fiction, and poetry, all carefully selected for him. In his old age, when he wrote his *Autobiography*, he could not remember that he had ever received any religious instruction whatever, but evidence from other sources shows that in his childhood his father took him to church and that he read the Bible with delight. These practices must have come to an end when James Mill gave up his religious beliefs entirely, and they seemingly made no lasting impression upon the boy.

One lucky interruption came when John was fourteen and spent a year in the south of France upon an estate

belonging to a brother of Bentham. Besides learning to enjoy natural scenery, he acquired knowledge of the French language, and a lifelong sympathy with French literature and customs. Returning home to London when he was sixteen, he studied Roman law with John Austin. He also read Bentham's works. From the latter, as he says in his *Autobiography*, he got "opinions, a creed, a doctrine, a philosophy, in one among the best senses of the word, a religion." Thereafter Bentham's philosophy became the basis of his thought, although his own views in after years advanced beyond Bentham in many respects. He soon read Locke, Helvétius, Hartley, Condillac, Berkeley, Hume, Reid, Dugald Stewart, and Thomas Brown. (He had previously studied in Greek much of Plato, whom he always admired.) Although well-grounded in British and French philosophy, and acquainted with Greek philosophy, he never gained a thorough understanding of Kant and the other German philosophers, whose views he seems to have known only at second hand, through Coleridge and Carlyle, as well as Cousin and other French writers. He studied his father's *Analysis of the Human Mind* while the latter was writing the manuscript. When sixteen he organized a group of young men who read and criticized one another's papers, encouraged by occasional visits by Grote and Austin. This club he called the Utilitarian Society, thus bringing into use a name not often before employed to designate the Philosophical Radicals.

To this extraordinary education, Mill in his old age believed that he owed his success in life. This admirable method of instruction had given him a start of twenty-five years over his contemporaries. He considered himself to have been by nature only a person of average ability, and that equally good results could be obtained with other ordinary children. In middle life, however, Mill regretted that he had never learned to play cricket and other games, and wished that he had been allowed to grow up like other boys.

When he was just seventeen, his father obtained for him

an appointment from the East India Company in the office of Examiner of India Correspondence immediately under himself. He remained in this office, ultimately rising to be its head, in 1856. Two years later, when the British government took over the rule of India, he retired. The working hours of the best years of his life were devoted to the duties of this position. Some of his most extended books—as well as many essays and reviews of these years—were written during evenings, week ends and vacations. It is hard for most of us to imagine a man spending his leisure hours writing technical treatises as his recreation! But Mill never had learned how to play; he could take physical exercises in walking, and while he walked he probably amused himself by thinking out the problems discussed in his writings. As his health during most of his life was fairly good, this manner of living probably agreed with him.

He formed a platonic attachment with Mrs. Harriet Taylor, a woman of high character and brilliant mind, with whom he discussed his thoughts, and whom he married two years after her husband's death. She seems to have been a good listener, and no doubt she stimulated him to some of his best thinking; but it is improbable that, as he imagined, she was the originator of most of his ideas. Shortly after his retirement from the East India office, while they were touring through France, Mrs. Mill died of a sudden illness at Avignon and was buried there. Mill resided most of the remainder of his life at Avignon, in order that he might be near her grave and feel in closer companionship with her.

After his retirement from the East India office and the death of his wife, he completed *Liberty* and some of his other best essays—*Representative Government*, *Utilitarianism*, *Comte*, and the three *Essays on Religion*. His seclusion at Avignon was interrupted by one three-year term in Parliament, where he was a valuable party member under the leadership of Gladstone. It pleased the Liberal members to have a philosopher who could explain the profounder sig-

nificance of the measures which they were advocating. Defeated for re-election in the district he represented, he refused to stand for another, contrary to the wishes of his colleagues, returned to Avignon, and resumed his studies. Mill's high principles, even temper, sympathy, and earnest desire for social justice commanded universal respect, even among those who criticized his technical doctrines. No one can read his *Autobiography* without liking the man. Although he is said to have slightly awed strangers by his dignity and reserve, he had a warm heart, and next to Berkeley and William James his is the most attractive personality among the great modern philosophers.

III. LOGIC

Mill's most systematic philosophical treatise is his *Logic*. He saw that social and political reforms to be effective ought to be conceived in the light of scientific knowledge. Such knowledge can be acquired only through correct methods of investigation. So Mill examines the methods of the natural sciences, in which thinking has been most accurate and progress most rapid, in order to determine how they can be applied in the fields of the social sciences,—ethics, economics, politics, history, and sociology.

Mill is an empiricist, following the tradition of Bacon, Locke, Hartley, and Hume. All knowledge comes from experience; experience ultimately resolves itself into sensations; the latter, combined by the laws of association, constitute our knowledge of the world. He formulates the principles of an empirical logic more thoroughly than had ever been done before, reveals its possibilities more adequately, and unconsciously discloses its limitations.

As an empiricist Mill believes all reasoning must of necessity proceed from one particular fact to another. Suppose we conclude that the Duke of Wellington (who was living at the time he wrote his *Logic*) is mortal, how do we know

this? You say, as a deduction from the major premise, that all men are mortal. But how do you know that all men are mortal? Simply because all men whom we have observed are alike in many respects; they belong to a universal class or *kind*, one of whose characteristics, to which no exceptions have thus far been observed, is that they have died. The premise that all men are mortal is in reality an induction based on observation of particular instances. This premise being accepted, and the fact that the Duke of Wellington is a man being obvious, the conclusion that he is mortal necessarily follows. But there is no real reasoning in the syllogism. The process of reasoning has already been completed before the major premise of the syllogism can be asserted. All reasoning is at bottom inductive. The syllogism is only a convenient way of stating what is already known. It adds nothing new to our knowledge.

Mill believes that real *Kinds*, as he calls them, exist in nature. Such a kind is a class of objects with common characteristics. We know no substance or substratum in which these characteristics inhere, although we can sometimes discover the causes that produce them. We may make mistakes in a classification, and assume that a kind has a universal property which it does not have. We suppose, for instance, that blackness is a universal quality of crows. If occasionally a white crow should hereafter be found among ordinary crows, or if a black crow should be found to turn white, we should have been mistaken in believing that blackness is a property and not an accident of crows. On the other hand, if birds should sometime be discovered in Africa or Australia exactly like our crows in all other respects but white in color, these birds would belong to another species, a different kind, from those which we had previously known. Mill's position is that all phenomena belong to real kinds with common characteristics; kinds are not arbitrary classifications upon our part, although we can make mistakes in our descriptions of them since our knowledge is necessarily

limited to inductions from our experience up to the present. If our experience did not discover real kinds, generalizations would be impossible, and we could not have scientific knowledge. How do we know that real kinds exist? Because our experience has discovered them. When Mill wrote his *Logic*, biologists still believed in the fixity of species, and chemists had no thought of the evolution of elements. Mill's illustrations of fixed kinds are now out of date. However, for purposes of logical thought, it must be assumed that the objects of our experience are organized in kinds or classes, whose common characteristics can be described, even if these kinds are transient in duration.

It is equally essential to knowledge that there are real *causes* in nature. Nothing happens without a cause. At least we are justified in believing this true of the portion of the universe which we inhabit, whatever may be true of distant stars about which we know nothing. Long experience sustains our belief. Mill's conception of a cause is similar to what was designated as Hume's "logical approach" to causation (page 204 above). An event that invariably precedes another is its cause, and an event that invariably follows another is its effect. Causation is a statement of such observed uniformities in the succession of events, disclosing no ultimate and hidden force or efficacy that passes from the cause to the effect. Psychologically, Mill like Hume wishes to attribute our description of causation to associations of ideas. We have always perceived A followed by B; this association has been formed in our minds; we conclude that A is the cause of B. Hume had been unable to show that such a subjective habit forms a logical justification for the validity of causal analysis.

This difficulty Mill endeavors to meet by advancing four principal methods by which valid associations of ideas can be distinguished. These methods he states much more clearly than Bacon or Hume had been able to do. They are the well-known methods of Agreement, Difference, the Joint

Method of Agreement and Difference, and the Method of Concomitant Variations. The most important of the four is the Method of Difference: "If an instance in which the phenomenon under investigation occurs and an instance in which it does not occur, have every circumstance in common save one, that occurring only in the former; the circumstance in which alone the two instances differ, is the effect, or the cause, or an indispensable part of the cause of the phenomenon." Take a living and healthy bird from a cage, plunge it into carbonic acid gas and it dies; as no other essential circumstance is different, as can be shown by repeating the experiment as often as desired, the cause of death is the gas. The method of Concomitant Variations and the Joint Method of Agreement and Difference can be employed in various cases where the simple method just described is impracticable. The Method of Agreement—where the same phenomenon appears in a number of instances with only one essential circumstance in common—suggests the hypothesis that the common circumstance is the cause, and should be verified, if possible, by the Method of Difference. These methods—which can now be found explained at length with illustrations in almost every elementary textbook in logic—seem to us so simple, obvious, and practical that we wonder why Mill was the first logician ever to state them with definite clarity.

These methods can be used only in simple cases, without making further complications. For instance, when many different elements are involved, the phenomenon must be broken up into simpler elements, which are analyzed specifically by means of the methods; the probable effect of their combination is reasoned out deductively; then by actual observation or experiment the deduction is confirmed. Mill recognizes the importance of deductive methods and the use of hypotheses. As an empiricist, however, he claims that the generalizations from which all thought starts in the first place are inductions drawn from experience, and that all

subsequent deductions must be verified by experience before conclusions can be regarded as established.

In accepting the reality of kinds and universal causation, Mill is of course assuming the uniformity of nature and the validity of the laws of thought. These he does not attribute with Kant to the constitution of our minds and regard as *a priori*. They are themselves generalizations from experience arrived at inductively, and accepted because of the success with which they have been employed in scientific investigations and the accumulation of knowledge. The rationalists accuse Mill of reasoning in a circle: he uses these assumptions, as everyone has to do who thinks at all, and then he regards them as established because experience confirms them. Perhaps it might be said in defense of Mill that every philosopher has to start with assumptions which he can justify only by the success with which conclusions derived from them are confirmed by further experience. Possibly the circular reasoning—if such it should be called—is more naïve and obvious in Mill's case than with Descartes, Kant, and Hegel; but this is only attributable to the fact that he is more candid.

Mill denies that there are any truths known *a priori*. All knowledge consists ultimately of inductions from experience. Mathematics is not an exception. The laws of number are generalizations derived from observations of things considered merely in their quantitative aspects; the principles of arithmetic and algebra deal only with these, and since all objects have quantitative aspects, these sciences apply to all objects. Geometry deals with points, lines, surfaces, solids. But no points and lines literally exist in nature. Every point and line we ever perceive actually has three dimensions. So geometry deals with idealized abstractions from the objects of experience. Mill does not mean to deny the usefulness of mathematics, but merely to show that its principles are not *a priori* in the Kantian sense; they have their origin in observations, and so far as they are true their truth is con-

firmed by actual experience. Mill's treatment of mathematics has probably proved to be the least convincing feature of his logic.

Why did Mill push his empiricism into mathematics, where it has so little plausibility? He was no doctrinaire. The following explanation is suggested. Conservatives in his time, as in ours, were wont to affirm ancient privileges on the ground of intuitions, natural rights, alleged self-evident principles, and to reject proposals for reforms on the claim that the results at which they aimed were inconceivable. If Mill could show that even mathematics—the supposed stronghold of intuitive knowledge and of truths proved by the inconceivability of opposite affirmations—rests on inductions from experience, there would be no standing room left, even in logic, for the opponents of Philosophical Radicalism.

IV. POSITIVISM

As a thorough going empiricist, Mill's views incline toward positivism. The only ultimate source of knowledge is sensations. We cannot know things in themselves. Our belief in the continued existence of external objects can be accounted for psychologically, without entering into metaphysical speculations regarding the real nature of the outer world independent of our sensations. I see a piece of white paper on a table, leave the room, and expect the paper to remain when I am not looking at it, and that if I return I shall see it again. But the paper when I see it is only a group of sensations in my mind. So I conceive of some external thing existing independent of my awareness of it, capable of giving me the same sensations; this is all that we really know of *matter*—it is a *permanent possibility of sensations*. Mill is therefore not a materialist; he does not think it possible to explain the nature of matter as a thing independent of experience. Nor is he a mentalist: he does not affirm that

only sensations exist. He is a *positivist*: what we know are phenomena, and it is useless to speculate about ultimates. However, as we shall see later, he did develop a philosophy of religion.

Mill treats the *self* in a similar manner. When I awaken this morning, I recognize myself as the same person I was yesterday. I recognize that some permanent possibility of inward feelings persists when I am not aware of them. What this is, I do not know. There is no evidence for believing with Berkeley in a permanent spiritual substratum or substance. However, Mill is aware of the difficulties in Hume's treatment of the self. He admits that although the mind is a series of feelings, it is none the less aware of itself as such a series with memories of the past and thoughts of the future. He is willing to accept the fact of self-consciousness, but thinks it impossible to give a further account of it.

Believing in the uniformity of nature and universal causation, Mill denies that human volitions are ever uncaused. *He rejects the freedom of the will in the sense of indeterminism.* He is anxious to show that human nature is subject to the laws of causation because he looks with eagerness to the development of the social sciences, which would otherwise be impossible. Every human volition has its causes in the character and motives of the person who performs it. These causes are to be found chiefly in the person's education and environment, physical and social. As a Philosophical Radical, and a believer in democracy, he is not willing to attach much importance to heredity, race, and instincts, and he thinks that with equal opportunities and equal education, all persons will be more nearly equal in their achievements. However, to believe in Necessity as applicable to all human conduct is not to accept Fatalism. The latter is the notion that the outcome of what we do has been determined by forces outside of us, so that our efforts can avail nothing. On the contrary, Mill thinks that our volitions, though themselves subject to the law of causation, are causes operative

in the world. He thus finds a place for freedom in a deterministic philosophy.¹

V. SOCIAL SCIENCE

Since human character is subject to causal laws, it ought to be possible to formulate these laws in a new science of character, to which Mill gives the name *Ethology*.² The general laws of physiology and psychology seemed to Mill to be largely established. A great deal of practical knowledge of human nature has accumulated and is statable in *empirical laws* which hold for most cases; *e.g.*, the old are likely to be cautious and the young to be adventurous. Such empirical laws are consequences of underlying causal laws that have not yet been adequately defined. By studying empirical laws in the light of the general principles of psychology, more exact knowledge of these causal laws can be ascertained. Ethology is capable of becoming as accurate a science as Tidology—the calculation of the tides, which, though unable to allow sufficiently for particular circumstances, nevertheless can indicate general tendencies. Ethology in the light of psychology will deduce theoretically the consequences that follow particular circumstances, and compare these deductions with the recognized results of common experience. It will then reverse the operation, and study the various types of character that are found in the world and interpret them psychologically. Thus the sources of all those qualities of interest to us in human beings will be ascertained. *Education* will then simply be a practical application of ethological knowledge to the specific needs of individuals. Mill never wrote a treatise on Ethology, the possibilities of which he sketches attractively in his *Logic*. A satisfactory science of human character remains to be developed.³

Although Ethology logically ought to precede the sciences dealing with man in society, Mill was able to say more about the latter. *Sociology*, Mill conceives as a deductive science

after the model of the more complex physical sciences. It considers the conjunction of the numerous causes which produce a complex effect. It cannot become a science of positive predictions, but it can discover tendencies valuable for guidance. The gathering of statistics, for example, reveals certain conformities in human events: *e.g.*, the numbers of murders, suicides, accidents, births, even of wrongly-addressed letters in the mails, remain fairly constant from year to year. General laws are evidently operative in such events, and are discoverable; although additional specific causes are also present in each individual case by reason of which it is impossible for social science to predict the future conduct of any individual. Mill thinks that much can be learned from the study of *history*, and that empirical laws can be deduced in consequence, such as those of social statics and social dynamics recently proposed by Comte (see preceding chapter), of which Mill approves in a general way.

History shows that the most important influence in determining the direction of social *progress*, has been *the development of intellectual thought*. The prevailing opinions of the thinkers of one age have brought about changes in the conduct and life of that which followed. Much importance also must be attached to *the leadership of great individuals*. The Roman republic would have subsided into a military despotism if Julius Caesar had never lived. The Norman Conquest of England was as much the act of a single man as the writing of a newspaper article. Without Socrates, Plato, and Aristotle, there would have been no philosophy for the next two thousand years; and without Jesus and Paul, no Christianity. No ordinary men and no succession of ordinary men could have made the discoveries of Newton. It is the presence of great men like these which determines whether there will be progress in any age. Science should be able to trace through history the general causes which brought mankind into a state favorable for the appearance of great men and accessible to their influence. Society could profit by this knowledge,

although Mill does not seem to think that it will ever know how to produce great men to order.

As has been seen, Mill could only outline the possibilities of a science of Ethology, and state a little more clearly the logic and possibilities of the new science of Sociology which Comte had launched. He was more successful with *Political Economy*, in which his great text was long a standard authority. A social science like economics can only lay down general propositions in the form of hypothetical judgments; it can show that under a given set of circumstances a cause will operate, provided no conflicting circumstances modify the situation. Political Economy isolates one important human impulse from the rest—the desire for wealth and corresponding aversion to labor—and it shows how economic processes would operate if there were no conflicting desires and aversions to complicate human conduct. Since as a matter of fact there always are such conflicting impulses, human conduct never follows economic laws entirely. Yet knowledge of these laws is of great value.

To outline Mill's economic doctrines would be to compile a treatise on the subject, which is obviously impossible here. He believes that the laws of production are fixed in necessity, but that the processes of distribution are more subject to social control. He believes in freedom of competition and free trade. Little permanent improvement in the condition of the laboring classes is possible except by voluntary limitation of their birth rate and by emigration. He wishes a tax on unearned increments in land. He looks forward to a time when everyone will work and none live in idleness. He thinks socialism worthy of consideration, and sympathizes with its ideals, but he doubts whether it would be practicable to determine the rewards due to different degrees of efficiency in production except through competition. For the present, at least, society should retain the capitalistic system. He would not sacrifice individual liberty and freedom of initiative for equality. He supports various reforms

for the improvement of the working and farming classes, legislation for the prevention of accidents and for better sanitation, for breaking up large estates and increased peasant proprietorship, and the like. He looks favorably upon the rise of labor unions and coöperative societies. He is realistic in his desire to understand economic laws as they actually operate, frank in calling attention to the evils of the times, progressive in his wish to improve social conditions wherever this can be done in an economically practicable way, and hopeful that substantial progress can be made. His economic views for a while became more liberal than they had been at first, but he became more conservative again at the end of his life. His influence upon the thought and practice of his times was constructive, and his economic outlook can be justly appraised only when consideration is taken of the period in which he wrote.

VI. ETHICS AND POLITICAL PHILOSOPHY

Mill's essay on *Utilitarianism* is a delightful exposition and defense of the position. The ultimate moral ideal is the universal happiness of mankind. Pleasure is good; pain is evil; each of us innately desires pleasure for himself and has an aversion to pain. Mill does not, like Bentham, think that man is naturally altogether egoistic and selfish. Man has sympathy and benevolent impulses which prompt him to desire *Utility*, i.e., what will promote universal happiness (pleasure). This enables Mill to recognize an "internal" sanction of good will, in addition to the four "external" sanctions which Bentham had laid down. Mill further disagrees with Bentham and nearly all other Utilitarians when he says that pleasures cannot be measured wholly on a quantitative basis; some pleasures are *qualitatively* superior to others. It is better to be Socrates dissatisfied than to be a fool or a pig satisfied; Socrates knows and can intelligently evaluate their pleasures, while they know nothing of his.

The intrinsic superiority of some pleasures is known intuitively by persons of sufficient intelligence and education to discriminate. Here Mill is more open-minded than the more doctrinaire Utilitarians, and makes concessions to other schools of ethics.

However, Mill is in the main a consistent hedonist. Virtues deserve to be cultivated only because they are traits of character that usually promote pleasure. It is true that virtues often seem to be good for their own sake, because though originally cultivated for their utility they have become habitual, and the thought of their utility has been forgotten. Just as a miser first began saving gold because of the pleasures which its future expenditure might bring him, and subsequently acquired the habit of saving it until he now covets gold for its own sake, so men first fostered virtues because of their utility, and now think of them as ends in themselves. Conscience and duty are explained by Mill in a similar fashion; once means for the furtherance of pleasure, they are now supposed to be intrinsically valuable. It is well for persons in most cases to do what they believe to be their duty; to obey their consciences and to conform to customs; for conduct so motivated usually furthers happiness. Moreover, it is often hard to think out clearly the consequences of actions and determine their utility. However, in any important issue, where reforms need to be made in order to increase general happiness, Utility is the only rational guide.

While Utilitarianism implicitly disavows supernatural authority as a determinant of what is right and wrong, Mill thinks that the code of Utility is really a scientific statement of the Golden Rule of Jesus, and that Utilitarian ethics is in full agreement with the moral teachings of Christianity. The difference between Utilitarianism and traditional orthodox Christianity is that the former derives its moral teachings from reason, the latter from revelation.

As has already been observed, Utilitarianism was an effective moral philosophy in an age when many old laws and

customs needed thorough modification in order to meet new conditions. Conservatives could not be allowed to block progress by asserting that their conscientious scruples and intuitions were opposed to measures that would undoubtedly advance the general welfare. Mill is sincere, and he abounds in good will for mankind. The many theoretical difficulties in Utilitarianism should not blind us to its practical usefulness in clearing away prejudices and opening the way to progress. It became a popular moral philosophy, and it still has adherents.

Mill's essay on *Liberty* is another classic. Its problem is to determine the nature and limits of the power which society can legitimately exercise over an individual. Society can rightfully prevent him from doing harm to others, but it should not interfere with him against his will for what others suppose to be his good. Every adult who is sane and a member of a civilized society should enjoy complete liberty of conscience and the right to state and publish his opinions on all subjects, practical or speculative, scientific, moral, and theological. He should be free to plan his own life according to his tastes and interests, and to combine with his fellows in any association for any purpose not involving harm to others.

Such liberty is indispensable for a free people. We could never be sure of the truth of any generally received opinion, unless everyone were privileged to challenge it at any time. Not only law but public opinion must become tolerant to this extent, so that individuals who wish to advocate what they believe to be reforms will be secure not only from governmental prosecution, but also from social ostracism. Many new ideas held by a small minority, history has proved to be right, or at least partially so. No erroneous opinion will be likely to obtain general credence if complete liberty of discussion is permitted to its opponents as well as to its advocates. Only through diversity of opinion is there a chance for all sides of the truth to receive recognition.

Actions, to be sure, cannot be as free as opinions. Those

who seek to effect changes through violence on their own part, or by inciting others to it, have to be suppressed. But everyone should be free to agitate for whatever measures he pleases, so long as he does so peaceably. There is a great danger, especially in a democratic society, that everyone will feel constrained to think as does everyone else. Individuality and originality are likely to be discouraged, and universal mediocrity to be the consequence. Every new idea of importance to the world had its origin in the mind of a single individual or of a very few persons. Exceptional individuals should be encouraged to act differently from the mass.

In this essay on *Liberty*, published in 1859, Mill seems to us today to be extremely conservative in fixing the limits to governmental interference with individual activities. The ordinary processes of industry, he thinks, can better be handled by private business. Even in cases in which the government might carry on an activity more effectively than individuals, it will often be better to leave it in private hands in order to encourage individual effort, initiative, and self-confidence. While the government may properly act as circulator of information to business men and farmers, it should not itself engage in processes of production. If a large percentage of the citizens were ever to become governmental employes or beneficiaries, all the freedom of the press and popular constitution of the legislature could not keep the country free other than in name. Mill fears the rise of a bureaucracy that would stifle individual initiative and develop a huge governmental machine that would discourage its numerous employes from thinking for themselves and expressing their opinions.

The *laissez faire* individualism of the essay on *Liberty* takes for granted complete freedom of competition; Mill did not foresee the complications that have arisen in more recent times with the concentration of capital in vast corporations and of laborers in powerful unions. Mill subsequently, as has been indicated above in reference to his economic views,

made more concessions to socialism; but in his closing years he again became more conservative.

The essay on *The Subjection of Women* is an eloquent plea in favor of equality for women, who in Mill's time had no political and few civil rights. He was the first man of prominence to come to the assistance of the women leaders of a movement which has now liberated the women of nearly all civilized nations from the disqualifications whose injustice he denounced.

In the essay on *Representative Government*, Mill points out some of the dangers with which democracy has to contend. Although favoring the extension of the suffrage to all literate citizens, he anticipates the evils that in fact have since come with such extension. He realizes that with the spread of democracy, legislative bodies will become increasingly mediocre. To offset this difficulty, he suggests that bills ought first to be prepared by expert commissions, and then submitted to legislatures for criticism and discussion to determine whether to enact them or to refer them back to the commission for revision. He advocates the then novel idea of proportional representation, to assure that all minorities will be represented in accordance with their relative numbers: this will make certain a fuller and fairer consideration of all sides of a question. Oddly enough, he opposes the secret ballot, then first being proposed in England, on the ground that individual citizens ought to have the courage of their convictions and be willing to let their neighbors know how they vote. While time has shown Mill wrong in this last detail, as well as upon some others, his candid analysis of the dangers in the democratic system, of which he approved in many respects, is prophetic and thought-provoking.

VII. PHILOSOPHY OF RELIGION

The *Three Essays on Religion*, published after Mill's death, undoubtedly express his final views on the subject,

although he probably would have improved their thought and style if he had lived to see them through the press.

The first of these essays is entitled "Nature." The order of nature as it exists apart from human intervention is certainly not what an all-powerful and benevolent God would have created as a model for man to imitate in his conduct. Nature kills all living beings, often first subjecting them to severe suffering—starving them, freezing them, burning them—with cruelty beyond anything ever done by a Nero or a Domitian. Nature is here for us to guide and control as best we may, not for us to imitate and follow. Nature cannot have had for its sole or even principal object the good of human or other sentient beings. What good they gain from it is mostly the result of their own exertions.

The second essay, "Utility of Religion," concedes that religion has in the past been the principal vehicle through which men have learned the principles of morality and been induced to obey them. Yet there is a very real evil in ascribing a supernatural origin to the received maxims of morality, excellent as these have often been, especially those of the Gospels; for all of these maxims are wholly consecrated, and no longer discussed or criticized; morality has become stereotyped, and details can no longer be revised to meet new conditions. Belief in the supernatural is no longer necessary to enable us to know what is right, or to supply us with motives to do it. Yet there is something in human nature that calls for religion. Can this be satisfied by a Religion of Humanity like Comte's, which bases morality upon large and wise views of the good of the whole, and directs our emotions toward an ideal object? The Religion of Humanity has two advantages over supernatural religions: it appeals wholly to disinterested motives, not to selfish desires for personal happiness in another world; further, it escapes the moral and intellectual twist that occurs in orthodox minds who try to make themselves believe that the imperfect world in which we live is the product of an all-wise, all-good, all-powerful Creator.

Yet, after all, the supernatural religions do have one real advantage in that they afford hope of a life after death; this Mill concedes, although he seems to be trying to minimize its importance.

The third essay, "Theism," gives his conclusions. Dismissing the rationalist arguments for the existence of God advanced by Descartes and Kant, as well as the argument for a first cause and that based on universal consent, he is impressed by evidences of design in nature, especially in the case of living beings. He doubts whether the Darwinian explanation of such design as due to chance variations preserved by natural selection will in the long run prove adequate for philosophical purposes.

These evidences of design, however, do not justify the hypothesis of an infinite God—*i.e.*, of an omnipotent, omniscient, and completely benevolent Creator. There is too much evil and imperfection in the world for that. The human body, for instance, is a marvelous machine, but it contains a great many imperfections. It is unlikely that either matter or force were created by God, or are completely under His control. The evidence suggests the presence of a God limited by matter and force. His power is very great but not infinite; His intelligence exceeds our imagination and is possibly omniscient; He desires and pays some regard to the happiness of His creatures who ought to coöperate with Him in efforts to make the world better, but He seems to have other purposes in the universe as well. Mill's conception of God was later to influence William James.

Mill thinks that there is no scientific evidence against the possibility of human *immortality* other than the mere absence of positive evidence in its favor. Suppose it be said that all the most beautiful things in nature about us perish, and why not we as well? Mill replies that the existence of any matter apart from our consciousness of it is a mere assumption to account for the permanent possibility of sensations. Mind is after all the only reality of which we have direct

evidence; it may be immortal. We at least have reason to hope that God has both the power and the desire to afford us a future life that will not lack the best feature of the present life—improvability by our own efforts. Such hope, although not demonstrable, is legitimate and philosophically defensible.

Mention need be made here of only two of the many Utilitarians subsequent to Mill. Alexander Bain (1818–1903) professor at Aberdeen, was a close friend of J. S. Mill, and a biographer both of him and of his father. He developed the thought of the school chiefly in associationist psychology. Henry Sidgwick (1838–1900), professor at Cambridge, one of the most eminent philosophers of his time, made a re-statement of Utilitarian ethics with concessions to intuitionism in his *Methods of Ethics*, a work which together with his treatises on political philosophy and political economy long exercised wide influence.⁴

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CHAPTER XIX

HERBERT SPENCER

I. INTRODUCTORY

Herbert Spencer (1820–1903) was the first modern thinker to see the philosophical significance of evolution in a comprehensive way, and through this conception to attempt a synthesis of scientific knowledge. Laplace at the beginning of the nineteenth century had advanced the nebular hypothesis, according to which the heavenly bodies have developed to their present condition from primitive gases: this is evolution in astronomy. Charles Lyell in the thirties had shown that by assuming the earth to have been in existence a sufficient length of time, all the various characteristics that it now presents can be accounted for as the result of processes still in operation and subject to observation: this is evolution in geology. Lamarck maintained that the various species of plants and animals have had a common ancestry, and that present differences between them can be explained by certain laws of development: this is biological evolution. Lamarck's views were usually rejected during the first half of the nineteenth century, but Herbert Spencer accepted most of them. Von Baer had shown that the embryo passes from a vague state of homogeneity to the differentiation of the various organs at birth,—a process that Spencer saw was analogous to the development of the different species. Comparing the results of these different sciences, Spencer believed it possible to arrive at a definition of evolution that would apply universally,—to the development of stars and planets, the earth's crust, plants and animals, the human mind and

human society in all aspects including government, economics, art, language, religion, and morality.

In 1859 Charles Darwin published the *Origin of Species*. Darwin's evidence, although circumstantial, was so conclusive that in a few years practically every scientist of note became convinced that all plants and animals have had a common origin, and that the older doctrines of the unchangeableness of species and their immediate creation must be rejected, although Darwin's own explanation of the manner in which this evolution has occurred—in terms of natural selection—was then and has since remained open to controversy. Spencer's preference for some of the explanations of Lamarck did not prevent him from at once becoming an enthusiastic supporter of Darwin. Spencer was emboldened in 1860 to announce his scheme for a Synthetic Philosophy of evolution, in which the conception should be applied to all of the sciences. From 1860 to 1893 he kept continuously at this project, writing separate volumes on metaphysics, biology, sociology, and ethics. His *Principles of Psychology*, already published in 1855, he revised and incorporated in the series. Although some years passed before Spencer's Synthetic Philosophy won much recognition, it presently became famous, and during his last years his works were very widely read, and he was regarded by many as the world's greatest living philosopher.

The facts of Spencer's life need to be noted only briefly. His father, a schoolmaster, and his uncle, a clergyman, gave him an excellent elementary and secondary education, largely by private instruction. He showed slight interest and aptitude in languages, some skill in drawing and sculpture, and decided ability in mathematics and the natural sciences. He refused to go to a university, which he thought would for him be a waste of time; he was probably right, for the curriculum in those days consisted chiefly of the classical languages and neglected the scientific subjects for which he had most talent. As a young man he supported himself by success-

ful but not highly remunerative work in engineering and journalism.

From 1860 to 1893, as has been said, he devoted himself to the elaboration of the Synthetic Philosophy. During the earlier of these years he subsisted meagrely upon his savings, small legacies from relatives, a gift from American admirers, and subscriptions for his books contributed in advance by well-wishers (among whom was J. S. Mill, who offered him further assistance and was always very friendly).¹ Gradually the sales of his books increased, and he ended his life in comfortable circumstances. He never married, his means being insufficient until he had passed the age when marriage seemed to him desirable. From about 1855 he suffered from ill health, probably due to overwork in youth, nervous indigestion, and eye strain, and for long periods he could work only a few hours a day. His perseverance under these conditions is admirable. He was able largely to overcome his handicap by his remarkable memory, as well as by his ability to concentrate effectively in his reading and in his conversations with scholars: he could get at the heart of any subject in a short time. He had an extraordinarily logical mind. He outlined the general plan of his whole system early in life, filling in the details as he went along, seldom changing his opinions on fundamental matters. His necessarily restricted hours of work and the increasing obstinacy with which he stuck to views once adopted help to explain occasional inaccuracies in his statements of facts. These errors are most frequent in his detailed sociological works, in which he relied largely upon information gained second hand from readers in his employ. He ended his days a somewhat eccentric old bachelor, whom his intimates understood and respected.

II. THE UNKNOWABLE

The fundamental outlines of Spencer's general philosophy, especially his metaphysics and his law of evolution, are con-

veniently stated in *First Principles*, which with the *Principles of Ethics* are of most interest to philosophical readers. *First Principles* begins with the Unknowable. The ultimate nature of reality is unknowable. Ordinary knowledge, based on observation and common sense, consists of miscellaneous information; this becomes partially unified in the sciences. It is ordinary knowledge, for example, that the sun rises earlier and sets later in summer than in winter, while the science of astronomy is an organized body of kindred observations which helps to explain the real nature of the heavens. That iron will rust in water, that wood will burn, that long-kept viands will become putrid are useful common knowledge which the science of chemistry unifies and enables us to say with more accuracy what changes will occur in each substance under given conditions. Scientific knowledge, however, is only *partially* unified. Philosophy organizes the partial unifications of the different sciences into *completely* unified knowledge. Spencer's formula of evolution, to be discussed later, is an instance of the kind of complete unification which he believes that Philosophy can effect.

Among the ultimates which science is unable to explain, Spencer includes matter, motion, space, time, substance, and causation. He refuses to follow Kant and to attribute these to forms or categories imposed by the mind upon sensations; he believes them to be objective characteristics of things independent of our observation of them. It is impossible, however, to know much about them. For example, we cannot think of matter as finitely divisible, composed of solid particles that cannot be further divided, at least mathematically, because the smallest particle would have an upside and a downside, an inside and an outside. Nor can we think of matter as infinitely divisible, reducible to points without dimensions at all; that would be inconceivable. There are similar difficulties with space and time. As for motions, they are all relative to an observer. Take a ship moving at the equator with her head to the west, at a velocity equal to

that at which the captain on board moves in the opposite direction. In what direction is the captain really moving, and is he moving at all? In respect to things outside the vessel he is stationary, although to all on board he appears to be moving. But if you think of the earth moving about its axis, the captain is travelling 1,000 miles per hour to the east; while if we take into account the movement of the earth in its orbit, his speed and direction are still different; and they are further modified if you consider the probable course of the entire solar system through space. Absolute motion and absolute rest are both inconceivable. This is a good illustration of Spencer's doctrine of *the relativity of all human knowledge*. All that we can observe are things and events, which we can bring under classes from our point of view, but regarding which we can gain no absolute knowledge.

Take the problem of the origin of the universe. There are only three possible suppositions, that the universe is self-existent (atheism), that it is self-created (pantheism), and that it has been created by an external agency (theism). Atheism is impossible: by no mental effort can we think of anything without a beginning, and even if we could its nature would not thereby be made any more intelligible. Nothing is more easily understood by saying that it existed an hour ago, a day ago, a year ago, an aeon ago, just as it exists now. We want to know how and why it exists. And this, atheism cannot explain. Now, suppose we say that the universe is self-created. We see invisible vapor passing into clouds; we can think of the earth and other planets having evolved from nebulae in a similar manner; but why does this happen, and how does it take place? What causes things to pass into one another? To say that they cause themselves to do so is unintelligible. So pantheism is inconceivable. The only remaining theory is creation by an external agency. The heavens and earth were made much as a workman makes a piece of furniture. But this supposition will not help us. A workman uses material which he did not make. If we suppose

the sun, planets, and satellites all to have been made by a Great Artificer, we presuppose his taking pre-existing elements and giving them a new arrangement. But whence came the elements? Did God create matter, space, time, motion? And where did God come from? Did He create Himself? Or is He self-created? Or was He created by an external agency? We are helplessly baffled. So Spencer is an *agnostic*. All that we can know are finite phenomena, which we observe succeed one another by rules or laws; their fundamental ground we cannot know. This ground is the Unknowable or the Absolute.

It is the business of *religion* to deal with the unknown. All through history science explains what it can; what it cannot remains within the domain of religion. Once religion explained the sun as the chariot of a god drawn by horses. Even after Copernicus and Kepler discovered the orbits of the planets, it was still supposed that there must be a spirit guiding the movements of each in its orbit. Newton explained all these movements in terms of the one universal law of gravitation. The domain of the known has kept widening with the progress of science, and that of the unknown has kept receding with religion. Still the great mystery remains. Although we know the law of gravitation, the mathematical formula, we do not know its ultimate nature. Religion will keep receding from certain fields as the temporarily unknown but knowable will be ascertained. But the ultimately real will always remain unknowable, and with this religion will always be free to deal as it pleases. Spencer thought that he had effected a happy reconciliation between science and religion. His reconciliation may have satisfied the scientists of this time, since it gave them a free hand. We can readily understand why the religious leaders did not welcome it, however. Later on, in his sociological studies, Spencer credited religion with having played a valuable role in social development, especially in the conservation of traditions and the maintenance of moral and social stability, and he

lieved that religious institutions ought in some form to survive.²

Our experiences of space, time, matter, motion, substance, causation, and like irreducible elements in phenomena, Spencer thinks are psychologically to be viewed in terms of the persistence of *Force*. This is the feeling of resistance which external things give to our muscles. Our other sensations have evolved from this more primitive sensation. Manifestations of Force accord with the law of the conservation of energy. But what Force really is, independent of our sensation of it, in what substance it may inhere, or what cause may produce it, we do not and cannot know. Here philosophy must stop, with Force for us the ultimate of ultimates.

Force sometimes appears to us as existing,—this we call matter; force as acting, we call energy. Force as we experience it may be either physical or mental. Mind cannot be reduced to matter, nor matter and energy to mind. They are effects within us of the Unknowable, the Absolute, which obey the law of the persistence of force and the general laws of evolution. The view clearly is not materialism, for force as we know it is simply our subjective feeling of muscular strain and activity. On the whole, Spencer's philosophy is more mechanistic or materialistic than idealistic in spirit, since he draws heavily upon scientific description whenever he can, and avoids teleological explanations. However, so far as he has any metaphysical position upon the relation between mind and matter at all, he should be classified with the upholders of the parallelistic or double aspect theory, like Spinoza. As an agnostic, he does not greatly trouble himself with problems of this kind, which he thinks are unsolvable. While Spencer's agnostic treatment of the Unknowable is the topic with which he begins *First Principles*, and in a way is the preface to his entire system, after all he devotes only 110 pages to it, and the rest of this and the remaining volumes of the *Synthetic Philosophy* deal with the Knowable. He is more concerned with telling us what he

thinks we can know, than reminding us of what in his opinion we cannot know. He is more of a constructive thinker, a positivist, than he is a skeptic.

III. THE LAW OF EVOLUTION

Spencer's formulation of evolution is his account of matter and motion as forms of force in different combinations. The law of evolution applies to all phenomena in all of the sciences. In stating it, he is exhibiting philosophy as completely unified knowledge.

The *primary* law of evolution—the only one operative in cases of *simple* evolution, describes the process as one of increasing coherence or *integration* of matter and of what motion is retained in a system. Wherever evolution occurs there is a collecting together, a combination of elements that previously were more scattered. A very simple illustration would be a cloud forming in the sky or a sand heap collecting upon a seashore. These are mere aggregations, in which the secondary law is not involved. More complex instances, in which the secondary law is indeed operative, but for the time can be ignored, we must next review.

According to the nebular hypothesis, which Spencer accepts, our solar system was once a diffuse nebula. Its matter has now become more integrated in the sun and different planets. Each planet passes through the successive stages of a nebulous ring, gaseous spheroid, liquid spheroid, and a spheroid externally solidified,—stages in which matter is becoming more consolidated. The sun keeps losing motion as radiated heat, and becomes a more solidified mass.

Geology reveals a process of integration in the history of the earth. At one time a molten mass, it has gradually cooled off. Three-fifths of its surface is covered with condensed vapor become water. The earth's crust has solidified, keeps growing thicker, and is now so firm that its surface is only occasionally very slightly disturbed by an earthquake.

Passing over to biology, we note that each plant and animal grows by integrating into itself elements previously scattered in the earth and air. Embryology manifests integration: for instance, the heart is at first a long pulsating blood vessel which turns upon itself and becomes four chambers; the bile cells, at one time lying in the wall of the intestine, accumulate, diverge from the intestine and consolidate into an organ. Integration continues after birth: the bony framework solidifies, the portions of the skull become more firmly united; the appendages of vertebrae become fully joined with the vertebral centers only at about thirty years of age. Consolidation of the motions of the bodily structures takes place. Phylogeny reveals similar processes of integration. Worms and myriapods have great numbers of segments, hundreds in some cases. These are gradually integrated in crustaceans, insects and arachnids to twenty-two, thirteen, or even fewer. The integration of the whole body reaches its extreme in the crab and the spider. Similar integrations occur in vertebrates; in fishes none of the vertebrae coalesce; numerous ones do so in mammals and birds, still more in apes and man. Corresponding integrations of motions attend these coalescences in structure.

The law of increasing coherence is illustrated in the relations between the individuals of the same species, in cases where they hunt in packs, have sentinels, and are governed by leaders. There is also increasing dependence of different species upon one another: animals directly or indirectly subsist upon plants, while plants use the carbon dioxide excreted by animals, and some of them depend upon insect fertilization for their reproduction. Darwin has shown that the flora and fauna of each locality constitute an aggregate so far integrated that many species would die out if placed among the plants and animals of another habitat.

Now to pass to sociology. Uncivilized societies often are nomadic, wandering families. They fuse together to form tribes. Weak tribes are subjugated by stronger neighbors,

and more permanent societies are formed. There is a tendency of European countries to form alliances, and this may ultimately develop into a world federation. Industries and forms of business tend to integrate into certain districts of a city or country and to be consolidated into larger organizations. These consolidations of course are attended by integrations of activities or motions.

Similar integrations take place in language. Polysyllables are reduced to monosyllables. The Anglo-Saxon *steorra* has become star; *mona*, moon; *nama*, name. "God be with you" is now "Good-bye." The lowest—*i.e.*, less developed—kinds of speech have merely nouns and verbs without inflections, higher kinds are inflected, and other parts of speech appear. In still higher languages, like English, inflections in turn give way, and new kinds of words develop to express verbal relations. The history of the sciences reveals increased integrations, as more and more facts are brought under general laws. The industrial arts show a progress of integration in the development from small and simple tools to large and complex machines. In the progress from the mural decorations of the ancient Egyptians and Assyrians to modern historical painting, there has been a marked advance in unity of composition, in the subordinations of parts to the whole. A similar process of integration is found in the history of music, from the simple cadences of savages to the modern melody or oratorio in which to the different voice parts are added a large number of musical instruments. The development of the modern novel in contrast with the tales of primitive storytellers shows integration. So the primary law of evolution is a change from a less coherent form to a more coherent form, consequent upon the dissipation of some motion, and integration of matter and retained motion.

In most cases of evolution, in addition to the primary law, two secondary laws are also operative, and there is *compound evolution*. Most of the illustrations already cited really involve compound evolution in *two* ways: as matter and mo-

tion become more integrated, they also become (1) more *heterogeneous* or differentiated, and (2) more *definite* in organization.

First let us notice illustrations of increasing *heterogeneity*. In astronomy, the original nebula becomes differentiated into sun, planets and satellites, diverse in bulk, weight, temperature, inclination of orbits, axes, and specific gravities. In geology, the earth, at first a molten mass, relatively homogeneous, has since become differentiated—water, air, and the earth's crust with its diverse mountains, valleys, plains, and climates. Each plant and animal begins its embryonic development as a single cell, relatively homogeneous, from which develops a great diversity of cells and organs. The general history of the evolution of plants and animals reveals that the more heterogeneous species have had their ancestry in forms that were simpler and more homogeneous; the extreme contrast in this history is found in comparing the amoeba with man.

In the evolution of society, Spencer thinks that at an early stage the only differentiation of functions was based on sex: every man was a hunter and fighter while every woman engaged in the same household drudgeries. Presently the chief evolved, at first both king and priest, while later state and church became differentiated, each with a host of different functionaries. The entire history of the division of labor is an illustration of increased heterogeneity. Along with these differentiations in social structure were parallel differentiations in functions and activities. In the history of language, the emergence of the different parts of speech, the multiplication of languages, and finally the evolution of the alphabet and of printed language from primitive pictures and hieroglyphs show increased heterogeneity. In the history of art, from the early wall decorations of Assyria have evolved first bas reliefs, as in Greek temples, then painted statues, and later the complete differentiation of painting from sculpture; while the two latter originally were chiefly used for religious

purposes, they but now express a large variety of interests and assume great diversity of forms.

It is not enough to say that evolution has been a progress from incoherence to integration, and from homogeneity to heterogeneity. These processes alone might characterize the earlier stages in the progress of a local disease in an organism or the beginnings in the downfall of a society, although they are actually steps in the direction of dissolution. For genuine compound evolution to occur, another secondary law must be added, *viz.*: that evolution is a determination, an advance from *confusion* to *order*, from the relatively *indefinite* to the more *definite*. Genuine evolution exhibits an increase in the clearness with which parts are marked off from one another. The same illustrations apply. The evolution of the solar system is an advance to definite structures of permanent shape, moving regularly in their orbits. The earth has become differentiated into definite and distinct geographical regions. The evolution of the embryo is a progress in definiteness of structures and functions. Protozoa have indefinite shapes and irregular motions, while forms higher in the scale are more definite. Society evolves into definite classes,—royalty, clergy, nobility, commons, slaves. The words of a language acquire more definite meanings. Tools and machinery become more definite in structure and processes. The crude paintings and sculptures of early civilization are replaced by the definiteness of modern works of art.

Evolution is a passage from the *relatively* incoherent, homogeneous, and indefinite, to what is *relatively* coherent, heterogeneous, and definite. There is no absolute at either end of the process. Moreover, any instance of evolution is one of *finite phenomena only*, and always has a *beginning* and an *end* both in *space* and *time*. We are now ready for Spencer's complete formula of evolution: "*Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from a relatively indefinite, incoherent homogeneity to a relatively definite co-*

herent heterogeneity; and during which the retained motion undergoes a parallel transformation."

No single process of evolution continues forever. Sooner or later a stage of *equilibrium* is reached in which the process stops. Our solar system is now a moving equilibrium: the planets move regularly in their courses, the sun contracts and throws off regular amounts of heat. This condition will continue for long ages, but it will come to an end. The heat in the sun will become exhausted, planets will collide, *dissolution* will set in, and our present solar system will return to a primitive nebula. A human adult organism is another instance of a moving equilibrium so long as the waste and repair of tissue are equal; but when with disease or old age the equilibrium can no longer be maintained, dissolution begins and is rapidly completed after death. In any society not sooner destroyed from without, an equilibrium will be reached in which the birth rate and death rate and other important factors will be equal; later on, dissolution will be inevitable. The process of *dissolution* is the reverse of that of evolution: it is a case of *increasing homogeneity, incoherence and indefiniteness*.

Does universal dissolution ultimately face all things? No, Spencer would say, probably not. When our solar system will be in a state of dissolution, other sidereal systems will be undergoing evolution; just as now, while our system is in equilibrium, others are in various stages of evolution, or dissolution, or are also in equilibrium. It is possible that evolution and dissolution will go on forever. *Evolution and dissolution apply to finite phenomena only*, to solar systems, planets, organisms, societies, and so on. *Does the universe as a whole evolve?* It is impossible to say. All that we know is that we constantly find opposed to us sensations of force, and when we examine the objects to which they give rise in our experience, all are subject to the laws of evolution and dissolution. Of the Absolute, the Unknowable, we can say nothing.

IV. BIOLOGY AND PSYCHOLOGY

Probably Spencer's lasting contributions to *biology* are chiefly having made the subject popular, and shown (no doubt exaggerated) its significance in the light of evolution for other fields of inquiry. He thought that to attribute the origin of life upon the earth to "spontaneous generation" from inorganic matter would be too crude. He supposed that at some period in the cooling off of the earth's surface, an organic mass devoid of structure must have appeared, which had the power to assimilate materials; from this, living protoplasm slowly developed when temperature and other environmental conditions became favorable. He was never able to make the hypothesis clear.

More fruitful was his definition of life as a *continuous adaptation of inner relations to outer relations*: even the lowliest organism keeps absorbing nutriment and excreting waste materials (two internal relations) in adjustment to the external relations of the environment. The adjustment becomes increasingly coherent, heterogeneous, and definite in the case of higher animals, able with their more elaborate organs to meet a greater variety of conditions in their environments. Spencer thinks that *the continuous functioning of organisms precedes and produces their structures*. The eye, for instance, originated in the persistent impact of light upon a sensitive cell which became modified and increasingly sensitive in its functioning. This change was inherited and further developed in the descendants of the organism that first had the modification. This is Lamarckism: use and disuse modify organic structures, and the modifications are inherited. Spencer believes that these modifications result from the direct action of the environment. He rejects Lamarck's doctrine that the *besoin* (desire, need, vital impulse) of the organism has anything to do with the matter. Spencer believed in the inheritance of acquired characteristics, but he was a mechanist, not a vitalist. When Weismann and

other biologists rejected the Lamarckian doctrines of use and disuse and the inheritance of acquired characteristics, and, as Spencer claimed, became "more Darwinian than Darwin" himself, Spencer was greatly disturbed. Social progress he believed would be more rapid if as a result of education and training, actual modifications in succeeding generations could be transmitted through heredity. If this be impossible, progress must be much slower. The controversy whether acquired characters can be transmitted in the manner that Spencer supposed still goes on to some extent among the biologists, but now most of them apparently believe that Spencer was wrong.

Spencer's *psychology* follows from his biological views. Life, as has just been said, he defined as a continuous adjustment of the internal relations of an organism to the external relations of its environment. Intelligence developed as a factor in this adjustment: it enables the organism to act with reference to more remote ends. Long prior to the appearance of intelligence, there had been a differentiation between outer cells which take in water, nutriment, and oxygen, and inner cells which are concerned with digestion and reproduction; and the outer and inner cells became differentiated in structure in consequence of their functions. The outer cells, more exposed to the environment, became more sensitive to it: that is why our skin is still so sensitive. The first form of intelligence appeared in the skin as sensations of touch. Smaller tracts of the outer cells became specialized into the anticipatory sense organs of smell, taste, vision, and hearing. As more sensations developed and fused together, the first beginning of *consciousness* ensued. The lowest form of mental life is *reflex action*: the irritation of a nerve causes a muscle to respond. *Instincts* developed as combinations of reflexes. *Memory* and *reason* later evolved as more complex ways in which an organism is able to adjust itself to the more distant relations in its environment.

The evolution of *feelings*, Spencer explains in a similar

manner. Those actions which make for survival afford *pleasure*, those detrimental afford *pain*; no organism could have survived and left descendants if it had found pleasure in actions unfavorable to its struggle for life. So with feelings of *sociality* and *sympathy*. These latter did not develop among predatory animals which fare best by living alone. But animals that profited by coöperation became gregarious and developed these feelings: in such animals the desire to live together became strong, so that now each individual readily catches the emotions of the others, as is seen in the spread of panics among gregarious animals, and the sensibility of horses, dogs, ducks, etc. *Egoistic* impulses, making for the survival of the individual, are old and strong in our animal ancestors; but *altruism* first appeared in the care of offspring and later in the efforts of flocks and herds for common survival. Spencer was among the first to realize that the original impulses to associated life among human beings were not the product of deliberate reasoning, but the conscious fruition of much older feelings inherited from animal ancestors. Even today a child has feelings of justice before he is able to reason about the subject.

V. SOCIOLOGY AND SOCIAL ETHICS

In distinction from the *inorganic* evolution of planets, the earth, and chemical elements, and the *organic* evolution studied in biology and psychology, the *super-organic* evolution of societies is the subject of sociology and ethics. Super-organic evolution occurs occasionally in the animal kingdom apart from man, and some features of social organization can be found among insects, birds, and gregarious mammals. The instincts that give rise to social organization therefore have their origin among animals older than man. However, it is in man that super-organic evolution has been most significant. It follows the laws of evolution in general: societies integrate, pass from relative homogeneity to relative hetero-

geneity, and become more definite in the structures and functions of their institutions.

In some respects a society is analogous to an organism. Societies grow; they are not manufactured. The individuals in a society to a certain extent resemble the cells in an organism: like cells, they die and are replaced. As they evolve, both societies and organisms increase in size. Primitive societies are simple in structure, but subsequently they differentiate into rulers—political, military and religious orders—and the ruled—food producers and handicraftsmen. In functions within lowly societies there is little mutual dependence between the parts; each man is at once hunter, warrior, maker of his own hut and weapons; such a society can break up without serious danger to its members; all of which is also true of some lowly organisms. In a highly developed society, as in a highly developed organism, each individual has specialized functions and could hardly survive without the coöperation of others. In an organism, three systems of organs develop: a *sustaining system* for the digestion of food; a *regulative system* to control and defend the organism; and a *distributing system* (circulation of the blood, etc.). There are analogous systems in society: as a sustaining system, the agricultural and industrial processes keep the society alive and nourish its various members; the distributing systems of societies begin with footpaths, caravans, messengers, and fairs, and now include elaborate modes of transportation, commerce, and banking; the regulative system, chiefly the government and army, directs and protects social processes, just as do the brain and nervous system the activities of an organism. Spencer was careful not to push the analogy between society and an organism beyond limits. He called attention to fundamental differences. The consciousness of an organism resides in its brain, and not in its individual cells; in a society, on the contrary, there is no mind or consciousness except in the individual members. The cells of an organism are subordinated to the organism as a whole; on

the contrary, the only justification for the existence of a society is the furtherance of the interests of the individual members. Spencer's analogy was suggestive at the time that he proposed it and in the ways that he applied it; he should not be blamed because subsequent sociologists for a time overworked it, or because sociology has now outgrown the need of such analogies.

Spencer agrees with Comte that we are now passing through an *evolution from militancy to industrialism*. The earliest societies were comparatively simple and peaceful. At the next stage, tribes entered into warfare requiring strong central organization and despotic rule, with the subjection of everybody and everything to the army. More recently a peaceful age has been approaching: industry and business are taking the place of warfare, and the individual is obtaining greater freedom and more rights. The position of the worker has changed from status to contract: he can come and go as he pleases and sell his labor in the dearest market. In peace time he is not called upon to sacrifice his work, and perhaps his life, at the behest of the state. Life, liberty, and property are all secure. The despot is no longer needed; representative government has taken his place. (All this, alas, seemed more assured in Spencer's time than now!)

Spencer defines *Justice* as "*the right of each man to do as he pleases so long as he does not trespass upon the equal freedom of every other man.*" Freedom of speech, association, travel, contract, religion, and the press are assured. There is more plasticity: individuals are no longer forced into hereditary classes and occupations. Spencer believes in free trade between nations, which in his time was the practice of England, and which he hoped might become universal and do much to maintain peace. The industrial era is bringing in a different set of virtues: blood revenge, honor in the old military sense, and dueling are disappearing; there is greater respect for the rights of others, including women and children. Labor is becoming honorable: it will soon be a disgrace

for a man to do nothing. There is a great increase of benevolence and philanthropy.

Spencer's ideal is *laissez-faire* individualism. He is emphatically opposed to socialism, and a firm upholder of individual initiative and the limitation of government so far as possible to protection of the country against invasion, the maintenance of order, and a few other essential functions. He strongly disapproves of political, military, and economic imperialism. Today, after the Great War and the appearance of many new military dictatorships, on the one hand, and, on the other, the necessity of more regulation of business and industry even in the countries that remain democratic, it is difficult to have so much faith as Spencer in the near prospect of universal peace and the assurance of individual liberty. However, most of us probably still hope that the further development of industry will in the long run force the nations into peaceful policies, and those of us who are neither communists nor fascists continue to believe that individual freedom and initiative must not be altogether sacrificed, even in the interests of equality and general economic security.³

VI. SYSTEMATIC ETHICS

Spencer's theoretical ethics is an adaptation of Utilitarianism to his conception of evolution. Good is what brings pleasure in the long run, and universal happiness (pleasure) is the ultimate goal. Ethics is the *science of conduct*, and conduct is the *adjustment of acts to ends*. There is not much conduct in the lowest forms of life: the infusorium, for instance, is passively carried about by currents of water, but even in the rotifer conduct has already become a little more developed, for it has whirling cilia by which it sucks in food about it, and a prehensile tail with which it can attach itself to some object. A marked advance in the evolution of conduct is noteworthy among the vertebrates. Compare a fish

with an elephant: a fish roams about in the water by hazard, can detect food only within short distances, and has comparatively few adjustments of acts to ends. An elephant detects food at great distances by vision as well as by odor, it can break off fruit-bearing branches, gain safety by flight, and employ means of defense and attack with tusks, trunk, and ponderous feet. In mankind, the adjustment of acts to ends is more varied and effective among civilized men than savages—in getting food, building homes, administration of government, and all other activities. And the evolution is not merely prolongation of existence, but *increased richness and fullness in intensity and bulk of life*. All this is clear, with reference to the improvement of the life of individuals, as well as of their offspring, and also of their societies. Perfectly developed conduct is possible only in permanently peaceful societies.

More highly evolved conduct, better adapted to ends, is *good* conduct; less highly evolved conduct is *bad* conduct. Thus one would distinguish a good knife, a good pair of boots, a good soldier, business man, father, mother, citizen, neighbor, in comparison with their opposites. *Good* acts are as a rule *pleasurable* acts, and bad acts are unpleasant. Consider other theories of ethics than the hedonistic—those that identify good with perfection, virtue, blessedness, purity of motive, or what not—all such values are good simply because they bring happiness in the end. If courage brought misery, if cowardice brought happiness; if robbery of a man's purse increased his pleasure, if chastity made families miserable and unchastity added to their joy: then our virtues and vices would be the opposites of what they now are.

Biological considerations confirm hedonism. Life is the adjustment of internal to external relations. Pleasant acts assist in this adjustment. An animal that delighted in being burnt and hungry would not long survive. In general, pleasant acts make for survival and painful acts for destruction. So pleasant acts are those well adjusted to ends and are good,

while painful acts are maladjusted and are bad. How explain apparent exceptions? Some of these are due to the inability to conceive remote ends, as intoxication which ultimately brings inefficiency. Others are explained by the transition for many people from outdoor to indoor life. Still others are intelligible in light of the passage from the military to the industrial state: in the former there had to be recklessness and indifference to much physical suffering on the part of one's self and others; in the latter greater sensitiveness regarding both is desirable. In any organism there is a balance of functions. The same is true of society. All our actions, as society becomes more nearly perfect, will be better adapted toward their ends.

This leads to Spencer's doctrine of *the relativity of pains and pleasures*. Some animals find pleasure in eating grass, others in eating flesh, and so on. A robust man can enjoy what would mean hardship, exposure, suffering, to tender women and children. Savages are more callous, less sensitive to pains and pleasures, than educated Europeans. Savages find continued application to industry tedious and painful, while the opposite is true of Europeans. Many business men now find fishing and hunting pleasurable because their ancestors made their living in this way; in time business men will find their business activities more pleasurable than anything else that they could do, and this is already true of some of them. When social evolution becomes complete, and man is entirely adapted to his environment in a moving equilibrium, all acts that are good because they bring most pleasure in the long run will be immediately pleasurable, and those that are the reverse will be immediately unpleasant.

In mentioning Spencer's psychological views, it was noted that mind or intelligence develops as a means of conceiving remote ends. The savage on the lowest level does this very little: he devours all his food today and goes hungry tomorrow; the higher savage is able to form an idea of tomorrow's needs; the civilized man forms ideas of very remote

ends. *Moral consciousness* implies the control of immediate impulses and feelings by higher and more remote ideas and feelings. Men have acquired this control in four ways. First, men feared the ruler and the government. Next, they continued to fear the ghost of a ruler after his death. (Spencer attributes the origin of religion largely to the fear of ghosts.) Thirdly, men feared the disapproval of society at large. In these three ways men learned to suppress proximate to more remote considerations. Fourthly, there arose *truly moral control*—thought of the necessary natural results of an action, *its intrinsic effects*. To refrain from theft for any of the first three reasons would not be completely moral. It would be truly moral to refrain from theft from thought of the injury to the person robbed and the general evil that follows from such conduct. The truly moral check upon adultery is thought of the unhappiness of an injured family. The truly moral incitement to help another person is thought of the better condition that will thereby be effected.

Duty or *obligation* is the feeling that one ought to act so as to bring about the best results in the long run, in spite of contrary desires for immediate pleasures. Duty begins as a mixture of feelings of authoritativeness and coerciveness. As persons keep engaged in proper conduct they find it increasingly pleasurable to do so; in time there will no longer be the conflict between immediate and remote ends that now gives rise to the feeling of duty. So in the course of evolution the sentiment of duty or obligation will wholly disappear. *Ethical conduct will have become natural conduct.*

Along similar lines Spencer reconciles the conflict between *egoism* and *altruism*. Egoism came first in the history of the race. Acts for self-preservation were indispensable for survival. Even today a certain amount of egoism is good, more perhaps than moralists would usually concede. The man who takes care of his own health, strength, and capacities is likely to be cheerful and to spread good will about him, to be the father of healthy children and able to support them. The

man who devotes himself too much to others is liable to be irritable and inefficient; he perhaps breaks down in health, and is almost certain to spoil by over-indulgence those for whom he has made excessive sacrifices. Society will best prosper if everybody looks after his own interests to a reasonable extent.

Altruism is also good, in measure. It, too, has always been developing. Low forms of life reproduce by fission, sacrifice their own bodies to make place for offspring. Bird and mammal mothers risk their lives for them. Altruism spreads among mankind. Men from the start were forced even by their egoistic interests to be in some measure altruistic—to bring order into primitive groups and stop aggressors, enforce rights of property and contract, and promote public health. Later, men have been discovering the worth of spontaneous good nature: benevolence brings pleasures not to be bought by money. A certain amount of self-denial in order to bring happiness to others is a pleasure to the person who exercises it. With more perfect social conditions—food for everybody, and steady industrial employment—there will be relatively few occasions in which a person will need the assistance of others. Under these circumstances everybody will find delight in giving help, and engage in good natured rivalry to obtain the pleasure it affords. There will no longer be any clash between egoism and altruism.

So Spencer is in a large measure an optimist. He looks forward to an era of universal peace and industry, in which every duty will have become a pleasure, and the demands of egoism and altruism will have become unified. Of course this state of perfect social equilibrium will not last forever. Dissolution of society and of the earth itself lie in the very remote future. But Spencer looks forward to progress for long ages to come, assured by the processes of evolution.⁴ The course of the few decades since Spencer's death does not prove him wrong; man probably has millions of years of evolution still ahead of him.

VII. EVALUATIONS

Spencer's metaphysical and religious agnosticism is not so complete as at first thought it appears to be. If it is possible to state a universal law of evolution which affords assurance of progress for long ages to come, and all this evolution arises from the Unknowable, is the latter completely unknowable after all? We at least know much of its past, present, and probable future manifestations in human experience. John Fiske, Spencer's most famous disciple in the United States, was able to develop in his *Cosmic Philosophy* and in four popular and widely-read essays (*The Descent of Man*, *The Idea of God*, *Through Nature to God*, and *Life Everlasting*) arguments in favor of God and immortality, based upon only slight modifications of Spencer's general philosophy, and these Spencer himself seems to have regarded not unfavorably.⁵ An Absolute that effects so much for human progress and development may be regarded from a religious point of view as God.

Spencer's general formula of evolution is probably true. However, the formula, while suggestive, has not proved so enlightening as at first it seemed to be. There are certainly great differences between the evolution of planets, organisms, and human societies, not to say of languages, industrial arts, fine arts, music, and sciences. A formula wide enough to cover so much is necessarily abstract and not too illuminating. It is not comparable in its scientific usefulness to the laws of gravitation and the conservation of energy. Investigators subsequent to Spencer have made little use of it. Alexander, and other emergent evolutionists of our own time, as we shall see in chapter XXIV, have overcome the narrowness of Spencer's *reductionism* (his ignoring differences in evolution at its various stages) by maintaining that new levels emerge from time to time, with unique qualities of their own.

While professing to offer a purely mechanistic account of

evolution, Spencer seems at times to be almost teleological. His favorite expression, "the survival of the fittest," is meant literally to imply only that those forms of life best able to cope with conditions will survive. Actually, however, Spencer seems to believe that those organisms and societies that have the largest moral possibilities for themselves and their descendants are those that have usually survived. Perhaps this is actually true, and if so, it strengthens the argument for a teleological, and, perhaps, a theistic interpretation of evolution like that of Fiske. It may be to Spencer's credit that he is not always consistent with his professedly mechanistic interpretation of evolution. A similar remark may be made with regard to his occasional statements that in the course of biological and super-organic evolution, not merely prolongation but greater amount of life is gained. In such observations Spencer seems to be unconsciously breaking away from a purely quantitative hedonism like Bentham's in favor of a qualitative hedonism like Mill's, or even of a perfectionist or self-realizationist ethics that recognizes other values besides pleasures. This, too, some of us think is to Spencer's credit.

Spencer's extreme version of *laissez faire* individualism is of course no longer defensible. But his insistence on the importance of civil rights and the maintenance of freedom of individual initiative and his strictures on excessive governmental interferences with business are still timely.⁶

Spencer exaggerated the importance of the conception of evolution. Significant as it has proved to be, not everything can best be understood in its light. Evolution has little place in logic, mathematics, physics, and chemistry, and less than Spencer supposed even in biology, psychology, sociology, and ethics. Yet in the last three fields mentioned, much advance has been made since Spencer's time that would not have been accomplished, at least so readily, without his pioneer work.

Like all pioneers, Spencer made mistakes which later investigators have had to correct. This, however, is not a damning charge. The same can be said of Plato, Aristotle,—in fact

of every philosopher and almost every scientist in history. It is true that Spencer is not today an up-to-date authority upon any subject. But at least his chiefly philosophical works, *First Principles* and the *Principles of Ethics*, remain classics, perhaps not so important as those of the greatest philosophers of the seventeenth and eighteenth centuries, but certainly high in rank among those of the last hundred years. Some say that Spencer's attempt to effect a synthesis of the sciences was premature. But every such attempt will always be premature in the sense that later discoveries will be bound eventually to supersede many of its conclusions. Spencer deserves praise for devoting his life to carrying out the best synthesis then possible, one that has been an invaluable aid to subsequent thought. No philosopher of the twentieth century has yet had the courage and persistence to attempt a comparable synthesis, highly desirable as such a work would be; although, as we shall see in later chapters, something has been done in this direction by Bergson and Alexander. Although the philosophers to be discussed in the five following chapters thought of themselves as opponents of Spencer, every one of them is to a considerable extent obligated to Spencer, and would not have developed his own philosophy as he did if it had not been for the provocation that Spencer's system aroused within his soul.

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CHAPTER XX

JOSIAH ROYCE

I. THE IDEALISTIC MOVEMENT IN GREAT BRITAIN AND AMERICA

Most British and American philosophers in the closing decades of the last century were unwilling to accept positivism, empiricism, agnosticism, and naturalistic evolutionism. They sought an interpretation of the universe more favorable to the spiritual aspirations of man. They appreciated the great advances that were taking place in the natural sciences and the importance of the new conceptions of evolution. But although man with his consciousness of himself and of the higher values has arisen from lower organisms, which in turn have emerged from inorganic matter, that does not tell the whole story. As Thomas Hill Green put it, "Can the knowledge of nature be itself a part or product of nature?" For man to know nature, and to be able to state its laws scientifically, there must be something higher than physical nature in the world to which the mind of man responds. The ultimate core of reality must in some sense be intelligent. The mind of man could have arisen neither from an absolutely lifeless and unintelligent universe, nor from an underlying principle entirely alien to him, unknown and unknowable. So the majority of the philosophers of this period were Idealists. They found in the reflections of Kant and the German thinkers who came after him, a point of departure for the development of systems that recognize the new discoveries in science, but at the same time transcend the limitations of science and present an interpretation of reality profounder and more inclusive, with an adequate

place for spiritual values—including truth, beauty, goodness, and religion.

The infiltration of German idealistic thought into the English-speaking world came very gradually. It had begun in the first half of the nineteenth century with poets and essayists like Wordsworth, Keats, Shelley, Coleridge, and Carlyle in England, and Emerson and the Concord school in the United States. Such men were able to catch the eloquence and fervor of Romantic idealism and to give it literary expression, although they did not grapple seriously with the intricacies in Kant and Hegel. Later on, in the British universities, where Plato and Aristotle formed a prominent part of the curriculum, classical scholars like Benjamin Jowett (1817–1893), appreciating the importance of German idealism and its affinities with the Greek spirit, prompted their younger philosophical colleagues to study the German philosophers thoroughly. J. H. Stirling (1820–1909), who published the *Secret of Hegel* in 1865, also awakened British philosophers to the value of the German idealistic movement, as a means for refuting naturalism, materialism, and skepticism, as well as affirming the spiritual worth and dignity of man. Thomas Hill Green (1836–1882), Edward Caird (1835–1908), John Caird (1820–1898), and many others made careful studies of Kant and Hegel, as well as of other German idealists, selecting what they believed to be of lasting value, and reinterpreting it in a manner suited to their own age and country. More original versions of Idealism were advanced by younger men like Francis Herbert Bradley (1846–1924), Bernard Bosanquet (1848–1923), James Ward (1843–1925), Andrew Seth Pringle-Pattison (1856–1931) and John Ellis McTaggart (1866–1925).

In ethics, the British idealists rejected hedonism, and described the good life in terms of self-realization, perfection, or welfare, somewhat in the manner of Plato, Aristotle, Kant, and Hegel, usually avoiding formalism and rigorism, and with Hegel attaching importance to social institutions. In

political philosophy, they were likely to be Hegelian in their insistence that liberty can come only through coöperation in the state. They disliked socialism, and were almost as insistent as Mill and Spencer upon the importance of individual liberty. Like Rousseau, Fichte, and Hegel, they desired the will of the people to be expressed rationally and intelligently in a general will prompted by desire for a common good; this good should assure to individuals the civil rights of free men, including that of private property which is essential for the expression of personality. They put more emphasis than the Utilitarians upon values higher than pleasure, developed metaphysical systems which found some place for religion, and defended organic theories of self, society, and the state. In the main they were in agreement with the Utilitarians in support of political and social reforms urged by the liberals of their time for the betterment of the masses of the people.

In the United States, the technical study of German idealism was initiated by William T. Harris (1835-1909) and a number of native Americans as well as gifted German immigrants after the failure of the Revolution of 1848. In the *Journal of Speculative Philosophy* and separate volumes, they published translations and commentaries. Presently the idealistic movement swept the colleges and universities of the country. Among the eminent supporters of the newly imported idealism were George Sylvester Morris (1840-1889), professor at Johns Hopkins and the University of Michigan; George H. Howison (1834-1916), professor at the University of California; George Herbert Palmer (1842-1933), Josiah Royce (1855-1916), and Hugo Muensterberg (1863-1916), professors at Harvard; James Edwin Creighton (1861-1924), Frank Thilly (1865-1935), Ernest A. Albee (1865-1927), and William A. Hammond (1861-1938), professors at Cornell; James Grier Hibben (1861-1933), professor and later president at Princeton; George Trumbull Ladd (1842-1921), professor at Yale; Mary Whiton Calkins

(1863-1930), professor at Wellesley; Borden P. Bowne (1847-1910), professor at Boston University; and many others. In fact, between about 1875 and 1900 almost every professor of philosophy in the country was an idealist, and the idealists remained in the majority for a decade or two later. There still are numerous idealists in the country, even among the younger men, and many who no longer classify themselves as such retain idealistic conceptions in their thinking.

The versions of idealism at the turn of the century differed considerably. All agreed in affording more place in reality for the higher values than Mill and Spencer, and in making spirit more important than matter. Perhaps the most important cleft was that between the Absolute Idealists who were monistic and pantheistic, and included all reality within a single all-embracing Mind (usually called the Absolute), and the Personal Idealists who were pluralistic and usually theistic, and who put more stress on the separateness and intrinsic worth of individual persons (*cf.* pages 189, 190 above).

Josiah Royce has been chosen as a representative of the Anglo-American idealistic movement for exposition in this volume. His presentation mediates between the extreme forms of Absolute Idealism which minimize individuality, and those of Personal Idealism, which their critics believe overstress individuals at the expense of unity. Royce is not difficult to read. He is interesting and inspiring. He is never superficial. He has been the most brilliant American idealist. Although some of the British idealists like Green, Bradley, and Bosanquet are possibly profounder thinkers, they are likely to appear to beginners somewhat dry and unnecessarily technical.

II. LIFE AND PERSONALITY OF ROYCE

Josiah Royce (1855-1916) was the son of English parents who crossed the American continent to California during the

"gold rush" of 1849. There they struggled resolutely to make a living, undaunted by pioneer hardships. The mother, a courageous woman of high character, organized and conducted an elementary school in her home at Grass Valley, for her own and other children, in order that they should not grow up in ignorance. Later on the family moved to San Francisco, where Royce had his secondary education. He took his college course at the University of California, where philosophy was not at the time taught in regular courses, a fact which possibly explains his lifelong interest in the subject. He was able to go to Germany for graduate work, where he studied philosophy under Lotze, Wundt, and Windelband (see page 401), and became particularly interested in reading Kant and Schopenhauer. He later completed his graduate studies at Johns Hopkins University, where he heard William James give some lectures, and took his doctorate under George Sylvester Morris, a brilliant interpreter of Kant and Hegel. Royce then returned to the University of California and taught English for a while. When at Hopkins, however, he had fortunately made a favorable impression upon James, who in 1882 secured him a call to Harvard, where he taught philosophy for the remainder of his life.

Royce grew up in the disorder of a turbulent community of gold hunters, desperadoes, and rough settlers. When he came to study philosophy, he was introduced to the calm serenity of German idealism. We can readily understand why, when he developed a system of his own, he regarded order, peace and security as the objectives of social life, and affirmed the eternal conservation of values in an Absolute Mind that embraces the whole of reality and experience in infinite and unchanging unity and harmony.

Royce is described as a man of medium stature, with fiery red hair which turned gray in later years. He had a round ungainly figure, with slight muscular development, but his great dome-like head was impressive, and all who saw him knew him at once to be a philosopher. A self-made man, he

had little opportunity for sports in his youth, and confined his exercise to walking. Graduate students found him a profound and stimulating teacher. While he sometimes talked over the heads of undergraduates, they regarded him with awe, and one of them in after life as President of the United States quoted him with respect. His manner of exposition in his books, and probably in his teaching, was to repeat a point over and over again with different illustrations, until everyone had grasped it. His works in consequence are lengthy and repetitious. Otherwise his literary style is excellent and often brilliant. Hegelian in his manner of thinking and exposition, his thought moves in an implicative rather than a linear order, and each separate detail throws light upon and is itself illuminated by the others. In reading the following exposition this should be kept in mind. The proof of his philosophy, Royce believes, is furnished quite as much by the comprehensiveness and consistency of the system as a whole as by isolated arguments. As with Hegel, the truth is the whole, and the real is the rational.¹

III. SCIENTIFIC AGNOSTICISM

It will be convenient to begin the exposition of Royce with his attacks upon the attempts of naturalists and materialists to construct an ultimate account of the universe out of what they falsely imagine to be the implications of the natural sciences. In this respect he is as much of an agnostic as Herbert Spencer. He has an ingenious argument in the *Spirit of Modern Philosophy*² to show that if the nebular hypothesis be taken literally, as an account of how cosmic evolution has actually taken place, it is full of mathematical and logical inconsistencies. In view of the law of the degradation of energy, any two particles of matter must have been an infinite distance apart in the remote past. All matter must once have been infinitely diffused. Sometime in the future it will be aggregated into an immense immovable mass, and

no further evolution will be possible. It is inconceivable that evolution should actually be taking place now, in a finite present, bounded on the one hand by such an utterly different infinite past, and on the other hand, by a still different infinite future, *viz.*:

INFINITE PAST \longleftarrow FINITE PRESENT \longrightarrow INFINITE FUTURE.

Whether Royce correctly interpreted the nebular hypothesis and other scientific doctrines at the time that he wrote, and whether his criticisms could be made in a modified form to apply to the physical and astronomical doctrines of our own time, the author is unable to say. Royce is in general sympathy with the arguments advanced by Kant and Spencer to show that space, time, matter, and motion cannot consistently be conceived as existing in their own right, as things in themselves, independent of all conscious experience. It follows for Royce that the sciences do not disclose the ultimate nature of the world. This is the only sense in which Royce is a *scientific* agnostic. He does not question the practical usefulness of the sciences for purposes of cosmic book-keeping. They afford quantitative measurements that enable us to predict future eclipses, to determine how heavy a load can safely pass over a bridge, and other practical matters. Philosophers should esteem the natural sciences for their utility. But the sciences do not and cannot furnish the philosopher with the necessary data with which to construct an account of ultimate reality. This will be clearer when we come to Royce's conception of the "world of description."

On the other hand, unlike Spencer, Royce is *not* a *philosophical* agnostic. Spencer thought that there is no way whatsoever by which man can know the ultimate: so Spencer was a philosophical agnostic. Royce, on the other hand, believes that through idealistic philosophy it is possible to know the ultimate nature of reality. So Royce is an idealist, and not a philosophical agnostic.

IV. THE UNITY OF THE SELF

Royce believes that "the whole universe, including the physical world also, is essentially one live thing, a mind, one great spirit."³ This doctrine, Royce thinks, is not vague nor imaginative; it is the conclusion of exact thought, in strict accordance with the actual facts of human experience, and the assumptions of human science. This one great Spirit, Royce refers to in his various works as God, the Logos, the Problem Solver, the World Interpreter, the Absolute, the Beloved Community. A philosopher who thus believes that the universe is one great all-inclusive Mind or Self will obviously think that we can best understand its nature by examining our own selves, our own conscious experiences.

Now any individual human self depends upon the possession of normal memory and imagination. If a person could not distinguish what he imagines from what he sees or remembers, he would be insane. A person who had no memory at all, who was aware only of his sensations while they were immediately present and of nothing else, would not be able to recognize or understand any object at all; he would have no personality; he would not be a self at all. It is just because a person's self through memory and imagination transcends the sensations of the present moment and binds them together through what Kant called the forms of perception and the categories of the understanding, that an objective outer world exists for him, and that he is aware of his own personal identity. Now what is this self that binds together its present and past sensations and gives them unity? Is it some kind of substance or soul behind the passing impressions? No, Royce believes that Hume has shown that this is not the case. But somehow the successive moments of a person's conscious experience form a unity that knows itself as such.

Moreover, the unity that we call a self differentiates itself into other selves, *e.g.*, into the self that acts in distinction

from the self which knows that it acts. (I know what I am doing, and consciously direct the process.) All of our private thinking in a way is social. A child through such social processes as playing with other children and imitating his elders acquires a personality of his own, and later comes to know that he has one. All private thinking on the part of adults continues in a sense to be social: we reason with ourselves, praise ourselves, condemn ourselves. Any individual person's self is thus in a sense a miniature society. Furthermore, a man taken out of all his social relationships would lose his personality altogether. He would have no self.⁴

A man gains enriched selfhood by losing himself as a detached individual and identifying himself with causes, occupations, the activities of other people. A man succeeds in any vocation in life by serving other people in some way; by so doing he gains competence, enlarges his own personality, and becomes more of a man. It follows that *mediation is the first law of thought and of reality*. This is what Hegel meant by the law of *Negativität* (negativity). Nothing exists in isolation. You gain yourself by losing yourself. You understand anything by contrasting it with something else. You gain character by overcoming evil.

What has just been said of our finite selves is also true of the Absolute Self (God). This Self, too, is subject to the law of mediation. God is a Self because He differentiates Himself into other selves, and unites their diverse experiences into His own all-comprehensive experience. We are related to the Absolute in much the same manner that different moments are combined in our own personal experience to constitute our different selves. Just as each of our individual selves is in a way a society composed of different moments of experience, so God is a Society, a Beloved Community, composed of all the conscious selves into which He has differentiated Himself, and whose conscious experiences are embraced in His own universal Mind.⁵ All that for us is imperfect, transitory, erroneous, evil, ugly, is eternally mediated by Him

in His all-inclusive experience and brought into harmony and unison.

V. ARGUMENTS FOR ABSOLUTE IDEALISM

As has already been said, the idealists, especially those of the Hegelian or Absolute type, did not entirely rest their case upon any single line of argument, but rather on the merits of their philosophy taken as a whole. Royce, however, does advance a variety of specific arguments. He believes it impossible to think of the world in a *realistic or materialistic* sense, as first having existed independent of human minds and later produced them. We have already briefly noticed Royce's attack on scientific evolution when interpreted in this manner. Another argument of Royce's is that the world and the mind are organically related; neither can be taken apart from the other; there can be no object without a subject that knows it. If it were true that atoms and molecules exist independent of minds, how could minds ever have discovered such a fact? There must be some connection between minds and objects of thought. If your ideas of matter are true, they must be like matter, and matter itself must in some sense be mental.⁶ (This line of reasoning, often found in Royce, is a version of mentalism, and a refinement of Berkeley's contention that an idea can be like nothing but another idea. See chapter IX, section III, above.)

With scientific realism thus refuted in Royce's opinion, only scientific agnosticism remains possible. Scientific agnosticism might be combined with *philosophical agnosticism* (as with Spencer and to some extent Hume, Kant, Comte, and Mill). Royce refuted philosophical agnosticism much in the same manner that Fichte and others attacked Kant's doctrine of the thing in itself. It would be impossible to know that there is a thing in itself, unknown and unknowable, back of all objects of experience, *except through ideas*. And for the mere existence of this unknowable, even if designated merely as X, to be recognized through ideas, the X would itself

have to be mental, and therefore not altogether unknowable after all. With scientific agnosticism established and philosophical agnosticism refuted, the only position left is some kind of idealism.

Royce has ready answers to some of the stock arguments against idealism. If it be objected that idealism is anthropomorphic, he can reply that every philosophy has to be anthropomorphic in some sense or other. To say that ultimate reality is matter or force is to make it like our muscular *sensations* of strain and resistance. That is not any less anthropomorphic than it is to say that the universe is like our *selves*, as Royce does. Which seems the more reasonable analogy, to liken reality to something so meagre as sensation, or to liken it to what is most comprehensive and inclusive in our experience,—the self?

Another stock objection to idealism is that it seems to make the world subjective, unreal, unsubstantial; hard facts confront us on every side, not mere ideas. Royce replies that ideas can also be harsh and unyielding. Take the principles of mathematics and logic; they are mere ideas, not physical objects. But you cannot change them. Some man may have sufficient skill and daring to climb a mountain hitherto supposed to be insurmountable. But no man will ever be able to make the sum of two and two anything but four! Some ideas are the sternest and most unyielding realities that we know.

To state another of Royce's favorite arguments for his version of idealism. How can you recognize the various objects about you in the room in which you are sitting? By combining them with memories and images of the past. How can you recall a forgotten name? By appealing to your larger self of memory which knows that name. You cannot perceive, or remember, or think, or imagine any object without drawing upon the resources of a larger self than that of the present moment. Now suppose that you and I both perceive an identical object, and disagree regarding its nature. I, for

instance, think that the desk before us is made of solid oak, while you believe that it is made of pine. Each of us has an essentially private mind. I cannot directly perceive any of your thoughts, nor you any of mine. (Royce did not believe in telepathy.) Yet somehow we do perceive a common object (the desk) and disagree about its substance. Obviously we are not quarreling about an idea in your mind, nor about an idea in my mind, but about "the real desk." It follows that you and I and the desk must all be present in a *common mind* (the Absolute), somewhat as all our own ideas are present in individual minds. The "real desk" is the desk as the Absolute perceives it, with your and my erroneous impressions corrected and our true judgments confirmed. The illustration of the desk is the author's, but it is a simplification of Royce's more complex examples.

Let us next glance at a moral illustration. If you say "that act is right," or "it is wrong," you do not mean that it is right or wrong merely in your own opinion, but that it is really right or wrong to a Mind that knows absolute truth. To make any assertion about any concrete fact or theoretical principle implies the assumption of an Absolute Mind that knows truth; otherwise there could be no standard by which to judge at all, whether correctly or falsely. Even to deny Royce's philosophy and to say "there is no Absolute" is to admit that there is one; for to make any assertion about a reality outside of one's own self, even a denial, implies reference to some larger Self. To doubt or deny the Absolute is to affirm it.

Royce does not presume, like Hegel, to deduce all the categories and conceptions of the Absolute in a dialectic. He is Kantian enough to admit that detailed information about matters of fact and the general principles of scientific description requires sensuous experience in addition to the categories of the mind. Only some general principles about the nature of reality as a whole can be established *a priori*,—only propositions which cannot be denied without incon-

sistently assuming them in the very act of denial. We can in this way be absolutely certain about the Absolute itself and some related principles of metaphysics, logic, and ethics; for the rest of knowledge, Royce concedes that we must depend on observation and experience.

VI. THE WORLD OF DESCRIPTION AND THE WORLD OF APPRECIATION

The distinction between *description* and *appreciation* is one of Royce's most characteristic doctrines. Illustrations of what a person really and fully knows at first hand as inward feeling or intuition and so immediately *appreciates* are: "red," "blue," "pressure," "space," "time," "myself," "beauty," "friendship," "goodness," "love"—sense qualities at one extreme and values at the other. Now, if our minds were immediately open to one another, as they would be if telepathy were true, we could immediately share all our appreciations. But this is not the case. We therefore are obliged to fix on certain signs that will *describe* our appreciations, so that others can recognize them and communication be possible.

Language is our chief method of communication. Words are symbols of ideas that can be easily recognized and communicated, because these ideas have been organized by means of forms and categories, such as space, time, causation, number. For instance, a certain shade of red may be "number 36" on your color card; a given space is "2 ft. long, 1 ft. deep, 16 in. wide." Now try to describe your friend to a stranger. It is comparatively easy for you to tell in feet and inches how tall he is, and in avoirdupois how many pounds he weighs, and further to continue your description until the stranger will be able to identify your friend by his physical characteristics. It is far more difficult to describe your friend so that the stranger will be able to appreciate the traits of his character which make him dear to you.

In the process of communication, men have selected qualities that are easily measurable and identifiable, and out of them constituted a *world of description* that is permanent and rational. This world is abstract. It is subject to mechanical causation. Its parts can be counted and measured; its laws can be stated and verified by scientific observation and experiment. This world of description began as the world of common sense; through successive improvements it has become the world of science. It has been built up out of certain of our appreciations,—those to which it was easy to give permanent names and to classify and measure.

This world of description is indeed *real*. It is not mere illusion. But it is extremely inadequate (as in the description of your friend by his height and weight and the color of his hair and eyes). Your description of your friend omits many of his most important characteristics just because they are not readily communicable, *e.g.*, his firmness of character, lovable-ness, etc. So mechanical descriptions are abstract and superficial. They leave out the profounder meanings and values in experience.

The world of description is the world of science. It is true, so far as it goes, but it is a superficial abstraction from the surface of inner experience of its most communicable aspects. We should value scientific description for what it is, but we should not mistake it for ultimate reality. Royce is no mystic. He believes that through philosophy some ultimate truths are communicable and even provable. But this is not possible through the crude and coarse methods of scientific description.

It is only through inward appreciation that we discover the unity of our selves and our social interdependence, and that our selves are all organically related to one another in an all-inclusive Self—God or the Absolute.

You and I hold together in a single moment events that actually succeed one another in short intervals of time as measured by an electric clock. By an effort of memory and

imagination we can witness a play or listen to a symphony, so that a duration of greater length is organically related in our experience and becomes a "now." To the mind of the Absolute, all that has ever occurred, is occurring now, or ever shall occur is present as a "Universal Here" and an "Everlasting Now" (to borrow Carlyle's expressions). To God "everything is all at once" a *totum simul* in the language of medieval philosophers. So all of our limited appreciations, clear but fleeting, are conserved for all eternity. Nothing that has been shall ever be lost or forgotten. These profound and comforting truths we know, not through science and its superficial descriptions, but through our inward appreciations. This affirmation Royce supports by many arguments to which it will be impossible to do justice here.⁷

VII. PANPSYCHISM AND RELATED DOCTRINES

What is the relation of God to the physical world? The latter expresses Him to us, but in an inadequate manner. We should not think of God as *causing* events to occur in space and time, on the same level, at least, as physical causes. God, to be sure, according to Royce, *wills* the world in somewhat the way that the Infinite Ego was thought to do so by Fichte, and the "will to live" by Schopenhauer. But this is different from making God a physical cause.

To make this a little clearer, let us first take a crude illustration of our own. Let us look at a watch. What causes the wheels to go around? The purpose of marking time? No, the physical cause here is the mechanical release of the main spring. We cannot introduce purposes into a causal account. To do so would be utterly unscientific. Purposes have no place in the world of description. Yet, after all, no watch would ever have been manufactured except for the purpose of keeping time! The scientific method of description can tell us many things about watches, but it cannot tell us why watches exist. So long as we study the outer world by scien-

tific methods of description we must look at it in a thoroughly mechanical way, and regard it as utterly devoid of purpose and value. For many reasons it is highly desirable to study the world scientifically. But so long as we do so we shall never discover its inner meaning and significance, as the outer garment of Deity. This latter can be done only through appreciation.

Now let us glance at Royce's view of the *relation of our minds to our bodies*. One's body expresses one's mind as it appears to others in the world of description,—as something measurable, occupying space, and with other quantitative characteristics that are readily communicable. We are in reality what we know ourselves to be in our inward life of appreciation. This view of the relationship between the mind and the body is neither the interactionism of Descartes nor the parallelism of Spinoza. Our thoughts and our muscles do not interact, nor do they proceed in parallel processes. Our inward thoughts and desires are the meaning and purpose of actions whose superficial aspects other persons observe and describe in bodily processes. We are in reality our selves, and our bodies are merely the outward appearances which others perceive.

In an analogous manner all external physical nature is merely the outward appearance of God, which scientists describe in mechanical terms.

All nature is really alive and spiritual in its inner constitution (*panpsychism*). Although we perceive only the bodies of our fellow men, it is easy for us to infer that they are actually alive and conscious just as we are. This is because their bodily movements are so similar to ours that we can readily impute to them inward experiences of appreciation like our own. It is a little more difficult but still possible for us to attribute life and consciousness to animals. It is harder to do so to plants and still more difficult to inanimate objects. Our difficulty, Royce thinks, is that objects with physical constitutions quite unlike ours in their observable and de-

scribable aspects probably have utterly different *time spans* from ours. Imagine a being which apprehends time far more rapidly than we, one that inwardly exclaims to itself, "What a slow affair this dynamite explosion is." Or imagine a being with a much slower time span than ours, to which the gradual wearing away of the gorge at Niagara Falls through geological ages seems almost instantaneous.⁸ Beings who organize their perceptions of time in such spans do not appear to us to have minds at all; when we perceive their external physical aspects which alone we can observe, we do not impute intelligence of any kind to them and do not think of them as even alive.

Royce explains that according to his version of panpsychism it is not necessary to suppose that every physical object, every house or table, every stick and stone, has a mind in any sense analogous to ours. Perhaps such objects are only parts of some larger being. Possibly, in the case of animals, a whole species in all its history upon the earth is enclosed within a single self or mind. Inorganic matter may be organized into selves of extremely vast extent and duration. Perhaps the right analogy would be to compare the habits of an individual human being with the rotation of the earth upon its axis, and the movements of a planet in its orbit. Or perhaps the better analogy would be to compare these latter with the duration and changes of customs in the life of a nation. We do not know.

In reality every thing in the universe is either itself alive, or is part of some larger being that is so. The point at which life seems to our scientists to have commenced in the earth's history is that at which observable processes go on that are enough like our own for us to be able to grasp and appreciate them. "The supposed 'miracle' of the beginning of life is merely the subjective miracle of our own human point of view." ⁹

VIII. FREEDOM

The world of the Absolute, according to Royce, being all-embracing, evidently cannot be determined by anything outside of itself. It follows that it is *self-determined*, and in that sense is *free*. However, all events occur in regular order; there is no element of chance or contingency in nature as it goes on in time; to this extent Royce is a *determinist*. The world as it exists is the expression of the eternal will of the Absolute. Why God has eternally chosen this particular world rather than any other, we do not know. Royce almost seems to attribute it to divine caprice, although doubtless the choice is the best. In the eternal choice of this particular universe Royce seems to attribute *indeterminism* to God; but to His eternal choice God has bound Himself, and in this latter sense God is *self-determined*. Thus in his conception of the will of God, Royce combines determinism and indeterminism in an unusual but not inconsistent manner.

Regarding *human* freedom, Royce is a *self-determinist*. Our lives are details within the eternally harmonious experience of the Logos. Yet our acts are determined by our own choices, and for them we are free and morally responsible. It is true that in the succession of events in time, every act we perform has its causes, but the succession of events in time analyzed causally belongs only to the world of description. Each of us has his own unique individuality, his own special value for God, and no one of us can take the place of another. If we appreciate this uniqueness and our own worth, and are thereby inspired, we are *free*. So far as we do not, we are in bondage. Spinoza thought that men are in bondage so long as they regard themselves as mere links in the chain of temporal events; so far as they can arise above time, look upon themselves from the aspect of eternity (*sub specie aeternitatis*), and engage in the intellectual love of God, they are free. Royce's thought is similar, except that he puts more stress upon the unique worth of individuals, and makes God

fully share and appreciate all our conscious life in a more sympathetic and less impersonal way. This difference will be clearer in the light of Royce's solution of the problem of evil.¹⁰

IX. THE PROBLEM OF EVIL

Royce insists emphatically upon the genuineness of evil. The study of Schopenhauer made it impossible for him to dismiss evil as an illusion, or a mere appearance. However, Royce's God, unlike Schopenhauer's "will to live," has not in vain willed the world with its evils. God has willed evil in order that greater good shall ensue than could otherwise have been attained.

Royce gives various illustrations and analogies. Suppose you or I were to hear a few strident notes in the rendition of a symphony, but were not to hear or be able to comprehend the rest of the composition. These notes would appear to us an unmitigated evil. To the Absolute, on the other hand, the whole of the spatial universe in its past, present, and future is eternally experienced and enjoyed, and passing evils are justified as necessary parts of the eternal good. Royce also gives moral illustrations. Joseph in the Biblical story was betrayed by his brethren, but in the end the very betrayal made possible Joseph's successful career in Egypt and the reunited family, happier than if the betrayal had never taken place. Still more striking is the betrayal of Jesus by Judas. Except for that evil deed, the death of Jesus on the cross might not have taken place. But Jesus died, and whatever may be the correct scientific and historical explanation, the followers of Jesus presently came to believe firmly in his resurrection, and the early Church out of common faith in the risen Lord attained a richer religious experience than would have been possible except for the treason of Judas.

Each of us should accept cheerfully his own misfortunes and afflictions, overcoming them and turning them into good in his present personal life, when, as is often the case, he

can do so; and being comforted in any event by the knowledge that the Logos has willed all for the best, and that to Him these evils now and for all eternity are part of the blessed and triumphant joy of God—a joy in which Royce's interpretation of immortality, as we shall see, gives us hope that we shall ultimately share.

It does not follow that every sinner should be complacent in the thought that his evil-doing is a contribution to the divine rapture. God indeed permits the sinner to do wrong, and through the services of other finite spirits God turns this wickedness into eternal good; but in the process the sinner is eternally damned and reprobated as the cause of evil that has been made good only through the heroic sacrifices of others.¹¹

X. IMMORTALITY

Some versions of absolute idealism, like that of Bosanquet, deny individual immortality: to be a finite individual is to be limited; only in complete submergence in the Absolute and loss of all personal identity is eternal blessedness to be found. Royce, on the contrary, makes a resolute effort to conserve personal immortality for individuals and yet make them ultimate participants in the divine life, and sharers of the eternal vision in which all evil is turned into good.

He believes that each individual self has had a beginning in time, yet is endless in duration. Each individual, moreover, is a unique phase of the divine life. Perhaps his best analogy is that of numbers.

1	2	3	4
2	4	8	16
3	9	27	81
5	25	125	625
7	49	343	2401

The series above the line is that of all whole numbers, and is an infinite series; it corresponds to the Absolute. Each

series below the line consists of a prime number and all its powers, and is infinite. The infinite series of 2 and all its powers corresponds to one human soul, that of 3 and its powers to another, and so on. Each of these series corresponding to a human soul is unique; it contains no number that appears in any other series below the line. Yet every number in every series is included within the series of all whole numbers appearing above the line.¹² The mathematical analogy is of course not an argument, much less a proof, but it at least makes clearer how the Absolute can be conceived as an infinite being, which embraces within itself all individual souls, each of which is both unique and infinite in its future duration.

Royce's conception is, therefore, that the universe consists in reality of a great multiplicity of individual selves, each of which is unending in its future duration, although in the case of human beings each has had a beginning in time. The rest of the universe, apart from us, consists of conscious beings with different time spans from ours, about whose inward appreciations we know nothing. All the experiences of all individuals are included within the all-embracing mind of the Absolute. Within the Absolute we are immortal as unique individuals. In a future life we shall share more fully the all-embracing vision of the Absolute, without losing our personal identity.

XI. LOYALTY

In his *Philosophy of Loyalty*, Royce finds the basis of ethics in the virtue of *loyalty*, the willing, practical and thorough devotion of a person to a cause. Extreme illustrations are those of a patriot to his country, a martyr to his religion, a captain to his sinking ship. Loyalty is not a mere emotion; it *does* something. It binds a man and his fellows into some kind of unity, takes each out of his private self into a larger self. The ends to which each individual should be loyal form a system in which each has its place in harmony

with the rest. Each person's loyal actions should not conflict with the loyalty of others to their purposes. Begin by being loyal to the persons and ends nearest you, and you will gradually be led to larger aims.

The immediate reaction of many of us to such an ethic is to say that loyalty is excellent, but unfortunately loyalties conflict. Individuals find different ends constraining them that cannot readily be reconciled. Social groups have aims that clash with those of other groups, notoriously so in the case of warring nations. Royce's only answer is "Be loyal to loyalty." His faith is that if men are true to their own causes and at the same time tolerant of the devotion of other men to different causes, and all are open-minded, all loyalties will prove ultimately reconcilable. Perhaps so, we say; this certainly ought to be true. But it seems to us that it will be ages before such a reconciliation will finally be effected in human society. No doubt such is the ideal toward which humanity should strive. According to Royce, this ultimate reconciliation is already and eternally present in the mind of the Absolute: with this assurance men may courageously seek to realize in time what has already been accomplished in eternity.

The Problem of Christianity, published in 1913, employs the doctrine of loyalty in an interpretation of Christianity. Loyalty, the love of the individual for the community, is the most important and enduring truth which Christianity has discovered and taught to the world. The implications of loyalty are the essence of Christianity, bound to survive in some form or other, whatever may become of other doctrines and institutions of the Church. No individual can be saved in his isolation. He can be redeemed only through loyalty to the Beloved Community. The "lost state" of the individual is that of persons who have never found, or having found, have subsequently failed in, their loyalty. No man can deliver himself by his own efforts. He obtains salvation through atonement and grace afforded to him by the divine com-

munity. Royce accepts the then popular doctrine of a social or group mind which includes all the individuals in a community bound together by mutual love and loyalty. This common group mind in the instance of the Christian Church is the truth in the doctrine of the Holy Spirit. God, or the Absolute, is the universal Mind inclusive of all the finite minds in the world,—in other words, the Beloved Community.

In this book Royce is making an earnest attempt to show that what is of abiding value in the Christian religion is in full harmony with his version of Absolute Idealism. The work would have made a profound impression upon liberal interpreters of the philosophy of religion if it had appeared ten years earlier. However, by the time of its publication British and American philosophical thought was drifting away from Absolute Idealism in the directions of pragmatism and the new realism, and Royce's interesting interpretation of Christianity has not received as much attention as it probably deserves.

In this chapter, our attention has been confined to those features in Royce's philosophy believed to be of most general interest. The advanced student will find additional topics for study: *e.g.*, the differences between Royce's comparatively voluntaristic version of idealism and the more intellectualistic interpretations of his British contemporaries, Bradley and Bosanquet; his technical contributions to logic; and his rather reluctant concessions in his later years to the pragmatism of his colleague, William James.

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CHAPTER XXII

JOHN DEWEY

I. INTRODUCTORY

John Dewey (born 1859) is by universal agreement placed with William James and Josiah Royce among the three most eminent American philosophers who have thus far appeared in the twentieth century. The relative importance of the three is a matter of opinion. Dewey has had a larger number of followers than either of the other two, although even he has never been able to convert a majority of his fellow countrymen to his philosophy. However, nearly every philosopher and educator in the country has been influenced by him to some extent.

A native of Burlington, Vermont, he took his college course in the state university there, where he was taught the Scottish realistic intuitionism then current in America. After three years of high school teaching, to which he possibly owes his first interest in educational problems, he returned to Burlington for a year of private study with H. A. P. Torrey, professor of philosophy at the university. Under his guidance he studied the history of philosophy and learned to read philosophical German.¹ Born and bred in northern New England, Dewey has retained an appreciation of the values of the family and local community. These values he hopes may be carried over into the larger groupings of the nation and the world.²

Dewey completed his graduate studies at Johns Hopkins University, and received his doctorate from George Sylvester Morris, who taught him Kant and Hegel more thoroughly, and interested him in the writings of Edward and John

Caird, Thomas Hill Green, and the other British Neo-Hegelians of the time. Dewey's first books, on Psychology, Leibniz, and Ethics, were written from this point of view. After receiving his doctorate at Hopkins in 1884, he followed Morris to the University of Michigan, where he served as an instructor and assistant professor of philosophy. He was a full professor at the University of Minnesota for a year before he succeeded Morris, who had died, as head of the philosophy department of the University of Michigan.

The definitive years in Dewey's philosophical development were the decade from 1894 to 1904, when he was head of the philosophy department at the newly organized University of Chicago, carried on extensive experiments in elementary education, and acted as director of the School of Education connected with the university. Early in this decade he broke with Neo-Hegelianism, and worked out the essential principles of the philosophical outlook for which he has ever since stood, known as Instrumentalism, or Operationalism. This philosophy bears some resemblance to what William James was proclaiming to the world as Pragmatism; and, after James had for several years publicly announced that Dewey was also a pragmatist, Dewey with some reluctance accepted the appellation. A generation later he dropped it (in his *Logic*, published in 1938).³ The similarities between James' pragmatism and Dewey's instrumentalism, while considerable, are by no means complete. During his years at Chicago, Dewey's colleagues in his own department gave their support to instrumentalism. Many men in other departments of the university were also influenced by him in their thinking. His ideas on elementary and secondary as well as higher education were carried out enthusiastically in the School of Education. He was the dominating figure at the meetings of the Western Philosophical Association, composed of teachers of philosophy throughout the Middle West.

A plausible case may be made for the claim that Dewey's

philosophical outlook is in considerable measure the reaction of a sympathetic Vermonter to the life of the Middle West, as he knew it. In that section he has always had more influence than elsewhere. During the sixteen years that Dewey lived there, the region passed through a severe depression and an economic recovery. Fortunes were quickly made and lost. Those with wisdom, resoluteness, and luck could succeed. Men were self-reliant, willing to take chances, and more desirous of freedom of action than of an order of stability and social security at the cost of governmental regulation and lessened freedom of initiative. Life was precarious, but success was frequent; the "quest for certainty," which Dewey was later to ridicule, was no part of the general attitude. Most people were able to improve their condition considerably; but on the other hand, there was a multitude of badly exploited workers living under wretched conditions, especially in large cities like Chicago. Dewey became keenly interested in the social settlements and other efforts in behalf of the underprivileged, who were likely to be immigrants and their children who had come to America from all parts of the earth, leaving their native traditions behind them. The older and more prosperous families were often only one or two generations removed from the pioneers who had settled the country, and they retained something of the unconventional attitude of their ancestors. Nobody cared for the customs and culture of the past, and everyone believed that progress was certain and would be rapid.

The middle western students at the state universities of Michigan and Minnesota, as well as at the privately endowed University of Chicago, usually wished to be "practical" in what they studied. Coming from families with less appreciation of culture than was the case among students in universities in the eastern states and in Europe, they were interested in subjects that could be seen to bear a close connection with their future vocations, likely to be commercial. Such students were ready to believe that Latin and Greek and

other humanistic subjects were survivals from an aristocratic culture for leisure classes, which ought to be discontinued in a democracy composed of practical men of business. Such students often liked best to do things with their hands, and to enter into a lively discussion on some obviously useful subject. They cared less for profound and technical books and learned lectures without any immediately practical bearing upon "life" as they knew it.

With a student body coming from all races and nationalities, a university professor felt a strong pressure to deny that there are any differences whatever in the capacities of the different stocks of mankind; everybody as a matter of inheritance is as good as anybody else; there are no native instincts of any consequence in the human race; all that we do is the result of habits that can be modified through education. Equal opportunities should be open to all. Dewey became an unreserved equalitarian in anthropology, as well as all other subjects.

The political, economic, and social conditions of the Middle West were rapidly changing, not always for the better. Dewey could see that education was needed, schools to prepare future citizens for a better democracy. He came to distrust conservative traditions of all kinds, such as natural rights, vested interests, legal precedents, religious and even scientific dogmas. There is nothing fixed in experience that may not be altered if conditions call for changes. Nothing must be allowed to stand in the way of social reconstruction. Nevertheless, there was a limit to Dewey's radicalism. He was a native of the state that produced Calvin Coolidge, and no Vermonter easily becomes a socialist or a communist. Dewey continued to believe in personal character, self-reliance, country community life, the town meeting, democratic co-operation, equality of opportunity. Political conditions ought to be made more decent and honest than they were in Chicago. Economic and other aspects of life ought to become more just. So Dewey became an ardent reformer who wished

everything to become *socialized* (in the sense of democratic, equalitarian) without becoming *socialistic* (in the sense of a class war, dictatorship of the proletariat, domination by a single party, submergence of the individual in the mass).

Education Dewey believed ought to be accessible on equal terms to children and adults of all races, religions, and social strata. No one should suffer from an inferiority complex. All ought to coöperate in school and college classrooms and develop a democratic spirit. They ought to carry back this spirit into their homes and communities and so build up a society that would be peaceable, tolerant, sympathetic, progressive. The middle westerners seemed to Dewey right in their insistence that all subjects studied should have a practical bearing upon life, but for Dewey this did not mean that education must be exclusively vocational. Rightly taught, science, art, and even foreign languages and instrumental philosophy could be seen to contribute to the richer life which the Middle West of that generation lacked, but could be led to appreciate.

Although Royce had come from a more undeveloped and disorderly region than any that Dewey ever knew, Royce made his abode in the oldest and most cultured part of America, and found his philosophical refuge in the calm assurances of the Absolute. James lived all his life in New York, New England, and Europe; while he knew that there is much disorder and confusion in the world, philosophical problems seemed to him chiefly to be calling for analysis from psychological and religious approaches; he was not so directly confronted, as Dewey was, with social and institutional problems. So Dewey's admirers claim that he has arrived at a better comprehension of the American spirit, most characteristically found in the heart of the continent, than did either of his two great philosophical contemporaries. This claim is probably justified.

In 1904 Dewey accepted a call to the philosophy department of Columbia University in the city of New York, where

he remained until he retired as emeritus professor in 1929. He has continued to reside in the city, writing books and articles, both technical and popular, delivering lectures and attending conferences. He is a prolific author, and has been producing works of international fame ever since his *Psychology* appeared in 1886. In some respects his most brilliant as well as clearest technical work, his *Logic*, was published in 1938 when he was seventy-nine. His fame has spread over the world. He became a Gifford lecturer on philosophy in Great Britain. He acted as an expert adviser on educational matters in distant lands desirous to assimilate western culture—China, Japan, Russia, Turkey. On the other hand, after Dewey went to Columbia University, his colleagues in philosophy and education, while they respected him, usually were not his disciples. They presented their own independent standpoints to their common students. Dewey's views have received fair consideration in the eastern states, without being uncritically and adoringly accepted as was almost the case while he was at Chicago. This eastern attitude has probably been welcome to Dewey personally, as he is a modest and unassuming man, with no desire for a role of magisterial authority. He has always been sympathetic with young philosophers and educators, and, in fact, with everyone. Even those who dissent most vigorously from his philosophical and educational theories are irresistibly drawn to the man personally.

It will be impossible here to follow in detail the evolution of Dewey's thought,—how in his middle western environment he gradually abandoned all belief in the Absolute, and yet retained numerous other Hegelian insights, nor how under the influence of James' psychology and the biological outlook of Darwin, Huxley, and Spencer, he developed his Instrumentalism. Instead, the more modest attempt will be made to approach his general philosophy by way of his views on education,—a procedure which Dewey himself has recommended.⁴

II. PHILOSOPHY OF EDUCATION

In the *School and Society*, published in 1899, Dewey gave an account of the methods which he was carrying out in his "laboratory school" for children, and the philosophy underlying them. Prior to the industrial revolution, especially in country places—probably including Dewey's own childhood home in Vermont—the typical forms of industrial occupation were carried on in the household, and children participated in them. Thus they acquired habits of order and industry, and a sense of responsibility: each felt that he must do something, produce something in the world. The problem for the modern city school is to afford a similar training in a more complex environment. The school should be a miniature community in which pupils by doing things in co-operation will become useful and intelligent citizens.

In the great majority of human beings the intellectual interest is not dominant, and can be awakened only by problems arising out of activities. The children in Dewey's school were given raw materials, *e.g.*, flax, cotton plants, wool fresh from the back of sheep. They studied the different kinds of fibres, and devised methods for separating them, for spinning and weaving, and for making into garments the cloth which they had manufactured. In connection with such activities, their interest was directed to the conditions under which raw materials are produced, the centers of manufacture and distribution, the physics and chemistry involved in making textiles, and how inventions have facilitated the progress of mankind. Still Hegelian enough to believe that to study anything completely leads into organic relations with everything else, Dewey says that it would be possible to compress the history of all mankind into the evolution of flax, cotton, and wool fibres into clothing. Other activities, in which boys and girls participated, were concerned with the work of the carpenter, smith, and cook.

The child in this school got experience at first hand, came

into contact with realities, and coöperated with his fellows. He learned the significance and importance of science, geography, and history. He improved his use of his mother tongue in oral class discussions and written compositions about what he had been doing or investigating. He drew pictures or made clay models of what he and the others had been accomplishing, or of themes suggested by their work, and so expressed himself in art. (All genuine art Dewey believes has been the expression of experiences at first hand.) All the other subjects of the curriculum were centered, so far as possible, about activities carried on in the school. Instead of being primarily rooms for studying lessons in books and answering the questions the teacher asked about them, Dewey's school was a laboratory where children made things and thereafter set out to learn more about them by their own experiments, only subsequently under the teacher's guidance seeking further information in books. To make anything that would be satisfactory required perseverance, industry, and accuracy: so discipline was afforded by the undertaking itself and not by the compulsion of the teacher. Instead of being an offense for one pupil to assist another, as it often is in a traditional school, the children worked together in their activities, and each tried to do his part and receive the commendation of the others. In this way they learned to be good citizens. The activities of the school were not vocational in the narrower sense,—they were not training in some particular trade. On the contrary, they were truly liberal and cultural, since they led to the study of all fields of inquiry that could be seen to be connected with actual living as it was going on in the world about the pupils.

In *Democracy and Education*, published in 1916, Dewey's philosophy of education is set forth with more elaboration.⁵ Education is the process by which social groups maintain their continuous existence. Those social groups that are intentionally progressive aim at a greater variety of mutually shared interests, and not exclusively at the preservation of

established customs. They are democratic in quality, allowing freedom to their members, and a consciously socialized interest. The democratic ideal is a continuous reconstruction or reorganization of experience. Such a process should be constantly going on in society. A school should likewise be a community in which the experience of the pupils is enriched and reorganized through common activities. Subject matter and methods of learning should be chosen with regard to this ideal. The school should not be a mere imitation or reproduction of contemporary social life in the outside world. It should simplify problems so that pupils can understand them and act intelligently. Its common life should move on a better moral plane than that of the outside world. The school should look forward toward a better democracy and help to bring it into being.

The democratic ideal is not at present perfectly realized either in our society or in our schools. This is because experience has not been clearly seen to be an organic growth, in which all interests can be brought into harmony. On the contrary, experience has erroneously been supposed to consist of a variety of segregated domains or interests, each with its independent values. General philosophy and educational philosophy have in consequence accepted a variety of dualisms or antitheses. For instance, physical nature has been supposed to exist in sharp opposition to man, and it has not been realized that man has evolved from nature, with which his powers are in harmony, and which he is largely able to reconstruct. Society has been divided into a small privileged leisure class which had a cultural education, and the humble laboring multitude whose training had been vocational. Dewey thinks that this wrong division of society into conflicting groups is responsible for what he believes to be errors in philosophical systems of the past. Plato and Aristotle were aristocrats who looked down upon the useful life of the artisan, and put too high a premium upon purely intellectual speculation without practical utility. Descartes and his

successors conceived of physical nature and mind dualistically, each external to the other. Later philosophers isolated sensations both from the external world and from other mental processes, and made them the ultimate source of knowledge. Hobbes, Adam Smith, Bentham, and others thought that men began by being purely egoistic, and have become social only through enlightened selfish interests; they did not realize that men have always had social impulses merely needing guidance and further development. While Dewey believes in studying the history of philosophy, he thinks that this should be done very critically, and that no conceptions should be accepted from the past without thorough reconstruction in the light of contemporary experience and needs.

Philosophy, Dewey thinks, always arises out of problems originating in the difficulties of *social* life. This he believes to be true of metaphysical discussions of the relations of mind and matter, body and soul, humanity and physical nature, as well as of those where this is obviously true, like conflicts between the individual and the social, theory and practice. Philosophy has sought to achieve a wisdom which would influence the conduct of life. A person has a philosophical disposition if he has concentration and feels social responsibility, is open-minded, and desirous of readapting former habits of life to meet new conditions. We go to sciences like mathematics, physics, chemistry, biology, anthropology, and history to find out the *facts* of the world; but when we ask what sort of *permanent disposition of action* we should adopt in the light of these facts, we raise a philosophical question. Philosophy attacks unsolved problems that have arisen in new emergencies; philosophy is not accomplished *thought*, but *thinking* in actual process with prospective reference; it defines difficulties and suggests methods for dealing with them; philosophy might be described as *thinking become conscious of itself*. Whenever there is a conflict between scientific, religious, economic, and aesthetic

interests, or between conservative concern for order and progressive desire for freedom, and such a conflict is a clash between different ideals of conduct which affect the community as a whole and call for a general readjustment, there is a need for philosophers. Philosophers are likely to offer different solutions, each inspired by his own *social* class. If the system of any particular philosopher becomes influential, it is because it implies some program of *social* adjustment. Dewey almost always interprets everything from a social, if not indeed from a sociological, approach.

Hence the intimate connection between *philosophy and education* becomes manifest. A philosophical theory that makes no difference in educational endeavor must be artificial. The educational point of view evaluates rival philosophies and reveals their practical significance. Conceiving education broadly, as the process of forming fundamental intellectual and emotional dispositions toward nature and fellow man, philosophy becomes *the general theory of education*. A philosophy can remain symbolic, verbal, a sentimental indulgence for only a few, or mere arbitrary dogma, unless its auditing of past experience and its program of values takes effect in conduct.

Philosophy therefore has a double task: first, it criticizes existing aims with respect to present science; secondly, it discriminates between aims that have become obsolete and sentimental, and those which can be reconstructed to meet present social situations. Education is a laboratory in which philosophical doctrines are practically tested. The reconstruction of philosophy, education, and social ideas and methods must go on together to meet new situations consequent upon the thorough-going changes in social life accompanying the advances in science, the industrial revolution, and the development of democracy.

It is therefore evident that Dewey's philosophy of instrumentalism, which we have thus far been considering in its educational setting, is similar in numerous ways to James'

pragmatism, and yet that it is somewhat different in spirit. Both James and Dewey believe that philosophies must be tested in practice: truth is revealed in action. James' interest, however, is largely religious. Dewey is concerned primarily with social reforms and improvements in education. Both are influenced by the new advances in natural science, particularly in biology. Dewey takes the philosophical implications of biology more seriously than James, although James, who began his career as a biologist, has more first-hand acquaintance with the subject. James is more frankly pluralistic, and thinks that the world consists of many disconnected elements. Dewey retains enough Hegelianism to wish to unify things whenever he can and see them mutually interrelated in organic wholes that are socially significant. Both James and Dewey of course unqualifiedly reject the Absolute. Both believe that novelties keep arising within experience, and that truths must be constantly revised and reconstructed. Neither makes clear just how experience is to be defined, nor how it is related to the rest of the universe.

III. REFLECTIVE THINKING AND LOGIC

How We Think, first published in 1909, and revised in 1933, connects Dewey's educational philosophy with his approach to logic. When we are dreaming, and sometimes when we are awake, the stream of consciousness runs on idly, inconsequently, disconnectedly, directed to no end. But when thinking is *reflective*, the successive ideas and judgments grow out of one another and support one another, and there is a sustained movement toward an end, toward the solution of a problem. In a chain of reflective thinking, *five phases* may be distinguished. Suppose you are walking in the woods, and your thinking is running along idly, in reverie. Suddenly you find a ditch in the way. The ditch is neither wide nor deep, and you are athletic. Your reverie in this case is intercepted only by a brief observation, and you jump across the

ditch quickly, go on your way, and resume your reverie. The interruption was so slight and the difficulty so easily solved that the problem hardly existed, and reflective thinking, if present at all, was only momentary. (This illustration of the ditch has been elaborated by the author, he hopes correctly.)

But suppose, on the contrary, that the ditch is fairly wide and deep, filled with muddy water, that you are not athletic, and that you have an appointment to keep. In this case a process of genuine reflective thinking may take place, with all the five phases. As the *first* phase, alternative *suggestions* occur to you: to try to jump across the ditch; to walk along its side in the hope that it will soon end or that you will find a log or a plank on which to cross. These suggestions, however, are rather vague, perhaps emotional; you are perplexed. The *second* phase ensues. You *intellectualize* the problem. You consider just how serious the difficulty really is. How much will it matter if you miss your engagement? Would your hostess be more offended if you were to arrive late at her tea party, or to arrive on time with possibly mud-died clothes? You decide that you must arrive on time and in presentable raiment; therefore, that it is necessary to cross the ditch at once, and without accident.

With the problem thus definitely formulated, you pass to the *third* phase, that of considering *guiding ideas, hypotheses*. One such hypothesis is to see whether a board or log, light enough so that you can carry it, lies within a reasonable distance. Another is to make a preliminary run, and, aided by the momentum thus gained, to try to leap across the ditch. Now you pass to the *fourth* phase. You examine each of your hypotheses *deductively*, that is, in the light of past knowledge and experience. You consider whether this is the kind of locality in which loose boards and light logs are likely to be lying about. You deliberate whether you would be able after the preliminary run to make the requisite leap. *Fifthly*, you test the more probable of the hypotheses by *experiment, inductively*. You try several preliminary

runs followed by jumps on your own side of the ditch, to test how far you actually can jump. You find that you can make a jump broader than the width of the ditch. Your problem is solved. So you quickly leap across the ditch, and go on your way rejoicing. If the incident impressed you sufficiently you might later on afford it *aesthetic* expression in some way,—give a humorous account of it to others, put it into a poem, or draw a picture of yourself jumping across the ditch. All genuine art is expression of vivid first-hand experience.

These five phases are present in every case of reflective thinking, although some of them may be quite brief and others prolonged and complicated. They may not always succeed one another in precisely the same order, and when one is blocked, a previous phase may have to be repeated: for instance, if none of the hypotheses of the third phase lead to satisfactory deductions in the fourth, or to inductive confirmation in the fifth, return to the third phase will be necessary and new hypotheses found, unless the problem is abandoned altogether. No problem is ever exactly like any other previously experienced, solved, and remembered, else it would not be a problem at all. Moreover, every situation is in some respects unique, and experience is an unending succession of novelties.

Some problems, notably in mathematics, are chiefly deductive, with attention centered almost entirely upon the fourth phase. In the experimental sciences most of the investigation takes place in the third and fifth phases. The problem may be a personal and temporary one of no very great consequence, like the illustration of jumping across the ditch, or it may be one of the utmost importance, to which a group of scientists or statesmen may devote the best years of their lives. However, every problem that is of any real significance is prospective, and refers directly or indirectly to future conduct. Genuine reflective thinking always serves some useful purpose, even though the purpose at first glance may seem

to be purely theoretical, directed to the better understanding of some field of knowledge, as in the researches of Galileo, Newton, and Darwin.

Dewey devotes the whole of *How We Think* to the discussion of reflective thinking, with particular attention to educational problems. The book has been widely studied in normal schools, and several popular elementary texts on logic for college students devote considerable attention to reflective thinking. Dewey's treatment of reflective thinking is a characteristic illustration of his instrumentalism in one of its most plausible applications.

Logic: The Theory of Inquiry, published in 1938, is possibly Dewey's greatest work. It states his theory of logic with comprehensiveness, and with much greater clarity with respect to technical topics than any of his previous writings. Logic, for Dewey, is *investigation into the methods by which inquiry—i.e., reflective thinking—in all fields is carried on*. Logic is an inquiry into the methods of inquiry in general. Logic is a *progressive discipline*, bound to change from one age to another. As the methods of science improve, corresponding changes occur in logic. Aristotle's logic was excellent for the science and society of his day; it is of much less worth now. In the future, methods of inquiry will continue to change, and logic with them (and, one infers, Dewey's own logical theory will be superseded).

The subject matter of logic, Dewey says, is determined *operationally*. Examples of operations are: hunting for a lost coin; drawing up a balance sheet in a bank; the manufacture of the spring of a watch. Operations always have to do with something existential, something going on in the world. Logic studies the operations used in all fields of inquiry, all attempts to solve problems. The five phases of reflective thinking are an illustration. The methods of reasoning and observing employed in the various sciences are others.

Logical forms are postulational: even the principles of identity and contradiction—that A is A, and A is not what is

non-A—are in reality postulates, “conditions to be satisfied” in the course of reflective thinking, in order to make the latter effective.⁸ Logical forms appear in treatises on logic subsequent to their prior unconscious employment: they are not due to *a priori* forms in the mind in a Kantian sense, nor are they universal laws of nature that existed in a realistic sense before inquiries were ever carried on. Just as the law of contracts regulating in advance the making of business engagements is a rule which has been adopted because previous business transactions implying it worked satisfactorily, so the various laws of logic are inventions made in the light of previous operations, and they are applicable to present operations only in ways that now work satisfactorily. Laws or forms of logic are subject to replacement whenever better ones can be devised. Such substitutions for the older rules of Aristotle, Mill, and other logicians are taking place today.

Logic is a *naturalistic theory*: there is no breach in continuity between the operations of inquiry which logic studies and the operations that go on in the behavior of plants and animals. The chief difference is that the lower living creatures adjust means to ends in their living without the conscious deliberation involved in the adjustments of thinking beings which logic studies. Logic is a *social discipline*: human inquiry is carried on by men who live in communities possessing languages and inherited cultures. Every human inquiry grows out of a background of socially inherited culture, and it results in modifying that culture. Dewey accordingly devotes considerable attention to the relationship between language and logic. Logic is *autonomous*: it does not depend upon metaphysics, or psychology, or any other discipline; it studies the methods used in all other fields of inquiry and formulates them; it is “an inquiry into inquiry.”

In the preceding paragraphs the principal contentions of the introductory chapter of Dewey's *Logic* have been explained in an extremely simplified way, but, the author

hopes, not incorrectly. In the remainder of *Logic*, Dewey amplifies these contentions, illustrates them, applies them to various topics ordinarily discussed in advanced treatises on logic. Dewey's "Operationalism" or "Instrumentalism" is evidently free from many of the ambiguities in James' simpler "Pragmatism." It is a profound and closely reasoned logical theory, and must be regarded with respect. Critics of Dewey who are unwilling to believe that the principles of logic are merely successful inventions that men have devised in the course of their activities often concede that Dewey has made a valuable contribution in his description of the psychological order in which men actually do think in the solution of problems, and that his description of reflective thinking is valuable, not only for teachers, but for everyone who wishes to think effectively.

IV. ETHICS AND SOCIAL PHILOSOPHY. RELIGION

Perhaps Dewey's best brief discussion of instrumentalism in ethics is Chapter X, "The Construction of Good," in *The Quest for Certainty*, his Gifford Lectures delivered in 1929. There are fuller accounts in *Human Nature and Conduct*, published in 1921, where ethics is correlated with social psychology, and in *Ethics*, a text for college students written in collaboration with Professor James Hayden Tufts (first published in 1908, and considerably revised in 1932).

Most Greek and many modern philosophers have recognized absolute and eternal *values*, which prescribe right conduct for all time. Christian theologians have often affirmed the existence of such absolute values and attributed them to the reason or will of God. Dewey vigorously objects to conceiving any values in an absolute way. Values are and ought to be undergoing perpetual modification and reconstruction in the course of reflective thinking with reference to changing social conditions and increasing scientific knowledge. On the other hand, Dewey criticizes modern empirical philoso-

phers, whom he accuses of identifying values with whatever anyone may happen to wish at a moment. These empiricists imagine that anything desired is *prima facie* desirable; anything satisfying, satisfactory; anything enjoyed, enjoyable. Instrumental ethics, on the contrary, insists that only what would prove satisfying in the light of all foreseeable consequences to all persons affected can be regarded as satisfactory, good and right.

Dewey approves of the attention of the Utilitarian school of ethics to the consequences of actions, but he thinks that the ethical standard cannot be identified with pleasurable feelings, and so he rejects hedonism. Moreover, motives, character, and the self are integral in conduct, and cannot be ignored. They are, however, subject to growth and modification in the course of reflective experience. Dewey refuses to accept any list of virtues, because such a list would be committed too much to customs and become a drag upon progress. As a substitute for specific virtues, he insists that human interest in the good must be wholehearted, persistent, impartial, and enduring.⁷

In his general ethical position, Dewey has retained much from Thomas Hill Green and other Neo-Hegelian idealists. Means and ends, motives and intentions, character and consequences all emerge in a moral situation and are organically related. The moral ideal is a gradual growth from one age to another, keeps undergoing constant reconstruction, and so cannot be definitively stated. The difference between Dewey and Green chiefly is that the latter believes that the whole course of human moral evolution is already and eternally known to an Absolute Mind; thus he finds a guarantee that all will ultimately work out right in our temporal experience. Dewey refuses to believe in any such Absolute Mind. He rejects absolute sanctions and guarantees of every kind; whenever philosophers claim to have discovered any such, they are trying to consecrate and perpetuate customs of some kind or other that may have been valuable in the past but

now or in the future will prove to be obstructions in the progress of a democratic humanity.

It is sometimes said that Dewey's moral philosophy, with its refusal to set up permanent standards or goals of any kind, resembles a party of young people on a joy ride who say, "We don't know where we are going, but we are on the way!" Dewey's supporters regard such a charge as unfair. Reflective thinking has its methods of inquiry, based on science. If men would only reflect and not act on mere impulses, habits, prejudices, and passions, there would be no wars, no conflicts between labor and capital, no other social maladjustments. Every problem can be solved operationally, if men will only combine observation and reflection with scientific knowledge. At times, Dewey's faith in the efficacy of reflective thinking seems to be as unqualified as was that of the men of the French Enlightenment in reason.

On examining the chapters in Dewey and Tufts' *Ethics*, Part III, dealing with the application of ethical theory to contemporary conditions, we find that Dewey after all does recognize a definite list of values.⁸ These values, to be sure, are not absolute and eternal, but they appear to hold without qualification for our age. Chief among them is *democracy*, not indeed altogether that of Jefferson, but a revised version emphasizing the social control of economic conditions. *Liberty* of thought and expression of opinion ought to be complete, and freedom of action as unrestricted as is compatible with the common good. Child labor should be prohibited. Factory legislation in protection of workers is commended. Collective bargaining by labor unions under laws more favorable to labor than existed in 1932 is advocated. Social insurance against old age, sickness, and unemployment is desirable. A modified capitalism is preferable in the United States in the immediate future to either socialism or fascism, provided business enterprises are subjected to public control, income more evenly distributed, and education made freely accessible to everyone. If all this can be denominated *democ-*

racy, the latter may be regarded as Dewey's supreme value, to be realized through operational thinking. He has no sympathy for aristocracy, a leisure class, vested rights or privileges of any kind. He is unreservedly equalitarian.

Dewey's political philosophy is stated in *The Public and its Problems*, published in 1927. The ultimate social unit is the Public,—all who are affected for good or evil by common interests. The Public used to find in the town meeting a medium where it could inform itself upon matters of common concern, and take intelligent action. The political *state*, if democratic, is the Public organized and directed by representative officers chosen by the people. The state has become so vast and complicated that the Public seems to be lost, is certainly bewildered, and does not know how to inform itself upon issues, and to direct its representative officers intelligently. The latter act in response to pressure groups. In all non-political matters society is directed by trained specialists, while politics is carried on unintelligently. The Public is amorphous and unarticulated. The essential problem is the improvement of the methods of debate, discussion, and persuasion, so that secrecy, bias, misrepresentation, propaganda, and sheer ignorance will be replaced by inquiry and publicity, and the Public will be able to form social policies by reflective thinking. Something analogous to the intelligence which local communal life once possessed must be restored and extended to the nation and to international relations. We might say that Dewey has stated the problem, and so completed the second phase in reflective thinking upon this topic. The remaining three phases lie for completion before him and us.

In *Freedom and Culture*, published in 1939, Dewey's attitude remains similar to that of *The Public and its Problems*, as he considers conditions in America and Europe just before the outbreak of the war in Europe, in which England, France, Germany, and other countries were involved.

Dewey's rejection of absolute values excludes all religious

doctrines that affirm such values and attribute to them a supernatural origin and authority. Religion has often been too conservative, unwilling to undergo reconstruction to meet new conditions. On the other hand, he recognizes the service that religion has often rendered in the past, in effecting unity, good will, and coöperation in social groups. Religion has a place in the future, if it can learn to forego absolutes, break away from custom and tradition, and other worldliness, and bind men and women together in common fellowship, working for social betterment and the advancement of humanity. The conception of God can be retained under these conditions. Attention should be directed toward human needs and aspirations for a better society to be lived in this world. Dewey has always been popular with clergymen and religious workers, and has had considerable influence upon the thought of liberal theologians and philosophers of religion.⁹ His views on religion are most fully presented in *A Common Faith*.

V. AESTHETICS

Dewey's views on aesthetics are stated summarily, in connection with his general philosophy, in Chapter IX of *Experience and Nature*, published in 1925. They are elaborated, with applications and illustrations in the various arts, with which he has wide acquaintance and appreciation, in *Art and Experience*, published in 1934. His interpretation of art is social in its approach, largely sociological.

The communal arts, by which primitive peoples commemorated and transmitted their customs and institutions, are the sources from which all the fine arts have developed. Patterns placed upon their weapons, rugs, blankets, jars, were marks of tribal union. Rites, ceremonies, legends, bound the living with the dead. Rites of mourning, war and harvest dances, feasts, magical attempts to control nature,—all were believed to have practical usefulness, yet they were motivated

by artistic impulses and had aesthetic form. These activities conformed to the needs and conditions of the most intense experiences. We may admire the Parthenon for its stern classic lines and its graceful proportions without thinking of it in connection with anything useful. But for the Athenians it had practical significance. It was a civic commemoration of the union between the community and their patron goddess. The Gothic cathedrals promoted the common welfare in relation to God. All art that is genuine is an expression of values in the experience of a group, or of an individual artist. When genuine creative experiences are intensely lived, they find their consummation in works of art.

Art should not be merely preservative of past values and experiences, nor should it be confined to traditional forms. Classical art is probably simply art that men have learned to appreciate. Romantic art is novel, but if it is interpretative of anything worth while, its merit will come to be recognized, and it will in its turn become classic. What, however, is merely eccentric and has no real worth will not endure. Art should be progressive, and artists should be encouraged to make experiments. The greatest art is neither aristocratic, nor bourgeois, nor proletarian, but interprets what is significant for all mankind.

Dewey thinks little of "art for art's sake." Art should be an interpretation and expression in which the meanings of life are understood and enjoyed. Art enriches life. In the aesthetic experience, to be sure, no immediate end is sought for the moment outside the experience itself. In this sense aesthetic values are intrinsic. Yet they are, or should be, an integral part of life, and not something separate from it. Plato was not altogether wrong in his wish to regulate the study of Homer and the employment of music in the interests of communal living. Aesthetic experience is, or should be, the consummation of common experience in its highest form of expression. Through it men arrive at mutual sympathy and understanding, more than in any other way.

It will be impossible here to outline Dewey's aesthetic doctrines in detail. His Operationalism insists that all production should be artistic in spirit; it should aim both at making something useful, and at doing so in a manner that will afford delight. A pan and a poem alike are made of materials of some kind; both should be put together in ways suitable for their purposes; both should make aesthetic appeals, although of course different in degree. The distinction between useful and fine arts is merely one of emphasis. Every production of man should serve both a purpose and aesthetic satisfaction. In our machine age too much production is mere toil, and there is not the joy of creation that there used to be in the work of the craftsman. Dewey desires no return to the forms of production prior to the industrial revolution, but he hopes that even in this machine age factories may become attractive and wholesome places in which to work, and artisans may produce under conditions that will give them pride in good workmanship. Every artisan should to some extent be an artist, delighting in his work and producing something that will afford aesthetic pleasure as well as utilitarian service. Works of fine art should not be produced to satisfy the pride of wealthy collectors, but should be accessible to all and enrich the understanding of the people. All life should be made beautiful: we should not live in sordid surroundings and find beauty only in parks and museums where we can temporarily escape from ordinary living. Art should not be "make believe" or an "escape from life"; it should organize life, integrate it through imagination, make it harmonious and joyous.

VI. GENERAL PHILOSOPHY

In his Carus Lectures, delivered at a joint session of all divisions of the American Philosophical Association, published in 1925 as *Experience and Nature*, Dewey gives his most satisfactory statement of his general philosophy.

All that we now know occurs within experience. Experience is not limited to the contents of conscious and subconscious processes. It includes also the earth, the plants and animals, the sun and the stars, the career and destiny of mankind, the history of the past as well as what is going on now,—in fact, everything that has ever been experienced. All experience goes on in time and is subject to change. What we primarily and originally find in “gross experience” is tangled and complex. Science analyzes and describes gross experience, classifies it, and brings it under laws: this procedure of science, too, is another kind of experience. Other phases of experience, besides gross experience and science, are magic, myths, politics, painting, and poetry. Science keeps changing, and a philosophy based upon the science of one generation is likely to be overthrown by the new science of the next.

Philosophy should give impartial attention to all the constituents of experience,—the precarious, uncertain, irrational, and hateful, just as much as the noble and honorable. The world that is lived, suffered, and enjoyed is as genuine as the world that is logically thought out. Philosophy cannot profitably rely upon any simplifying procedure like Descartes’ test of “clearness and distinctness,” or Locke’s “simple ideas,” or Hume’s “impressions,” or more recent “ultimate sense data” and “mathematical logistic.” All these are produced in the course of thinking, and cannot properly be supposed to have any existence or validity of their own independent of and prior to the thought of the philosopher himself. There were no atoms until the reflective thought of physicists brought them into being, no sensations until the introspective analysis of psychologists isolated them from other events in the stream of consciousness. However, atoms and sensations now exist in experience, *i.e.*, in the experience of scientific investigators. The work of scientists and philosophers, so far as it proves satisfactory, is a reorganization and reconstruction of earlier experience, and is valuable

as such. It will endure until subsequent scientists and philosophers reinterpret experience still more effectively. There is no absolute, unchangeable truth, not even, Dewey would probably admit, in the philosophy of Instrumentalism.

Experience in the gross is precarious, unstable, perilous. It was so to primitive men; it remains only a little less so to us, with our wars and depressions. In uncertain situations reflective thought enters, and men learn to some extent to control events, prevent or mitigate accidents, and to plan a relatively more secure future. Mind and matter are different characters which natural events assume in experience; matter denotes their sequential order, mind their order of meanings in logical connections. Mind and matter are both functions of adjustment that arise within situations; neither is an entity that exists separate from the other, prior to or independent of experience. The world of experience is unfinished, incomplete, without any predetermined direction. This world we can to some extent learn to control; so that the future course of events will be more in accordance with our desires and aspirations, frail goods be substantiated, secure goods be extended, precarious promises of good be more liberally fulfilled. (In other words, Dewey believes in a melioristic universe.)

Human experience has two striking features: (1) *direct enjoyment*,—festivities, ornamentation, dance, song,—ultimately giving rise to the fine arts and more cultured aesthetic appreciations; and (2) *useful labor*, leading to practical arts and scientific knowledge. To isolate the former features into a philosophy and hypostatize them into a world of transcendent and unchangeable beauty and good led to the cosmos of Platonic and Aristotelian tradition, and to modern absolute idealism. To isolate the modern scientific interpretation is better, and has resulted in much progress; but carried to the point of materialism and mechanical necessarianism, it is unwarranted. Scientific laws are merely tools devised for the organization and direction of conduct and control of

objects within human experience; they disclose no ultimate reality lying outside of human experience.

In the world of experience, events interact on three successive plateaus. The first of these, *matter*, is described by physics: the interactions are mechanical and mathematical. The second plateau is that of *life*, where organic matter interacts with external objects through sense organs, nervous systems, and reflexes. The third plateau is called *mind*, with activities of association, communication, and participation, with possession of and response to meanings, including those of memory and imagination: all this is a mutual interaction between the human organism and its environment, in which the organism in some measure controls and alters events. The *soul* is merely these organic activities organized into a unity. Dewey is not a Cartesian dualist nor a Spinozistic parallelist; the soul is simply *the organism integrated*. *Consciousness*, often interrupted as in sleep, when existent includes awareness of only some of the many adjustments and meanings present in the organism, most of which at any given time are subconscious. However, consciousness has a function; it appears where some acute difficulty is present, and its attention is focused on the elements in the situation that require adjustment. This accomplished, the corrected activity becomes a habit and slips out of consciousness. If an organism were completely adjusted to its environment at all times, it would be entirely unconscious. Consciousness, for Dewey, is evidently a relation, a functioning of organic processes in a situation; it is not an underlying substance and yet it is not a superfluous epiphenomenon. It performs a service in the life of the organism.

The *freedom of the will* Dewey interprets in a manner similar to Hegel (see pages 334, 335 above). To understand conditions intelligently implies some ability to direct and control the course of events. We are not free when we have no comprehension of conditions about us. Nor are we free when we know but passively submit to them. We are

free when we know them, and plan how to change them, utilizing our foresight of possibilities in order to realize the more desirable among them.¹⁰

The Quest for Certainty presents a similar outlook. In these lectures Dewey rejects the "classical tradition" in philosophy represented by Plato, Aristotle, Kant, Hegel and the Absolute Idealists, as well as all other attempts to find outside of the changing stream of temporal events that constitute experience some eternal order in which values are conserved and assured. Such attempts are futile; all that really exists undergoes change. They are likely to be vicious, because they tend to consecrate some values held at the time to be important, but which later on will call for thorough revision. The only certainty and security possible to man is to face the future resolutely, and to reconstruct events in order to effect satisfactory adjustments, knowing fully that any reconstruction temporarily achieved will later on have to be modified to meet new conditions as they arise.

Up to a certain point, as we have seen in this section, Dewey has a metaphysic. This, however, is not free from certain ambiguities. One of the chief of these is his conception of *experience*. Precisely what does Dewey mean by experience, perhaps the most important term in his metaphysic?

If Dewey means experience to be something mental or psychical, as the word seems to suggest, it is difficult to conceive how experience can go on of itself in the universe without being the experience of some mind or minds which possess it. To assume that all experience is included within a number of minds would imply some kind of pluralistic idealism. There is little in Dewey's writings to suggest any inclination toward pluralistic idealism, so that possibility can be at once dismissed. To assume that all experience is included within a single mind would be absolute idealism, like that of Royce. This Dewey emphatically repudiates. However, it is to be remembered that Dewey at the outset

of his career was a neo-Hegelian, a kind of absolute idealist. Some interpreters of Dewey have surmised that he has absent-mindedly retained the word "experience" in his vocabulary subsequent to his repudiation of the Absolute: that he is, paradoxically, "an absolute idealist who no longer believes in the Absolute." Otherwise it is difficult to understand why he employs the term "experience" in such a sweeping way as was outlined in the earlier paragraphs of this section. If he does not believe that experience is always in some sense or other mental, possessed by a mind, it would seem that he would have made his thought clearer if he had abandoned the use of the word in an all-inclusive sense, and instead have substituted "reality" or "the universe."¹¹

At other times, Dewey gives the impression that he is a naturalist, possibly an agnostic, in somewhat the sense that Herbert Spencer was a naturalist and an agnostic. For Dewey frequently seems to imply that experience occurs only when an organism is in interaction with an environment. Now from a naturalistic point of view, the earth, and probably the universe as a whole, certainly must have existed long ages previous to the presence of any organism, and during these ages there could have been no such thing as experience. The universe must be much vaster than the organisms now existing within it, combined with their experiences. If Dewey were to concede this, and yet continue to maintain that human knowledge is confined to experience, he would be forced to admit that the universe as it exists in itself apart from the experiences of organisms is unknowable. This last position would be similar to Spencer's.

Still at other times Dewey seems to write as if he were a positivist, with at least some points of similarity to Comte and J. S. Mill. Interpreted in this manner, Dewey's position would be something like this: all that we know is experience; it is useless to ask what else exists, if anything at all. But we can learn a great deal about experience, develop natural sciences, study their methods, and in the light of them pro-

duce social sciences which will aid us to build a better society.

Perhaps the correct interpretation of Dewey's general philosophy of experience is to say that he is totally indifferent to the alternatives which have just been suggested; this is as much as to say that he cares nothing for the ultimate problems with which nearly all great philosophers before him have been concerned. He has not considered it worth while to decide whether to be an idealist, a naturalist, an agnostic, or a positivist. His practical middle western environment during the years when his philosophy took its definitive form led him to conclude that a philosopher should confine himself to problems bearing upon how to bring about a better social order and to investigations in those fields accessible to a philosopher—like education and reflective thinking—which will directly or indirectly assist in this undertaking. The two philosophers whom we are next to consider, both born the same year with Dewey, developed their thought in very different environments, and we shall find them as keenly interested in advancing interpretations of the ultimate nature of reality as Dewey is indifferent to such problems.

The important contributions that Dewey has made, which entitle him to be enrolled among the great philosophers of modern times, are not to metaphysics, but to the other fields of philosophy. Through his proposals for the reform of education, his illuminating analyses of the processes of logic and reflective thinking, his clarification of the ideals of democracy, his insistence that art should be integrated with living, and his courageous facing of the difficulties of the present era untrammelled by the inertia of custom and tradition, he has introduced a new spirit into modern philosophy which is invaluable.

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CHAPTER XXIII

HENRI BERGSON

I. INTRODUCTORY

Henri Louis Bergson was born in 1859 at Paris,¹ where he was educated at the Lycée Condorcet and the École Normale Supérieure. Although interested both in science and literature, he devoted his primary attention to philosophy, which as a young man he taught in various provincial lycées (corresponding roughly to American secondary schools and junior colleges). Subsequently he returned to Paris, where he became famous while professor of philosophy at the Lycée Henry IV from 1889 to 1897. After teaching next for three years at his alma mater, the École Normale Supérieure, he was a renowned lecturer at the Collège de France from 1900 to 1921. Those who wished to hear him had to come to his lecture hall an hour in advance in order to secure seats. During the World War of 1914, he visited Spain and America at the head of missions to present the cause of France. After the restoration of peace, he presided over the International Commission for Intellectual Coöperation of the League of Nations. He is a member of the French Academy, the Academy of Sciences, and the council of the Legion of Honor. He was awarded the Nobel prize in literature in 1928. French philosophers are proud of him, but most of them are not his unqualified followers, preferring either the great rationalistic tradition, or else the sociological approach of Comte and Durkheim. His influence, however, is considerable, and almost every contemporary philosopher in every country owes something to him.

Bergson was born the same year as Dewey. They were both

influenced somewhat by James (who was among the first to make Bergson's philosophy known to the English-speaking world by a favorable account in his *Pluralistic Universe*). Bergson has often been compared with James and Dewey, and in fact he has even sometimes been denominated a pragmatist. However, his Introduction to the French translation of James' *Pragmatism* makes it clear that while he admires James, he is not a pragmatist. Like James and Dewey, Bergson believes that change is more real than permanence, that time must be taken seriously and not regarded as an appearance, that man has a free will, and that percepts and concepts are formed in order to enable us to act effectively. But unlike them, Bergson does not believe that the usefulness of tools of thinking in activities is any clue to truth, but quite the contrary. This is one of many reasons why Bergson cannot be classified as a pragmatist or an instrumentalist. According to Bergson, percepts and concepts not only simplify, but actually falsify our experiences of reality. The correct approach to reality, which is a ceaseless changing, is not to be gained through anything like reflective thinking, but through *intuition* (immediate insight, sympathy, something more like instinct than intelligence). On the other hand, in Bergson's version of intuition, as well as in some aspects of his philosophy of evolution, we are frequently, if somewhat vaguely, reminded of Schelling and the Romantic movement.

Bergson's essential philosophy is presented in four comparatively short books, on each of which he worked patiently for years, reading extensively in scientific and other literature bearing upon the problems under consideration. His striking similes and metaphors are illuminating, provided the reader is careful to note the qualifications with which Bergson introduces them. Each book has high literary as well as philosophical merit. The English translations, which have been submitted to Bergson for approval, present his thought with accuracy, and preserve more of the literary charm of the original than is often true of translations.

The first of these four books, his doctor's dissertation, the *Essai sur les données immédiates de la conscience* (1889, translated into English under the title of *Time and Free Will*), maintains that reality is *duration* (*durée*),—i.e., a continuity in time, not broken up into the parts by which our intellect tries to interpret it when it endeavors to measure intervals of time in terms of space—, and that our life in spaceless time is in a sense free, undetermined. *Matter and Memory* (1896) contends that the human brain is the tool by which the mind comes into contact with the external world, that perception is a process by which the possibilities of action are presented to the mind and appropriate acts made possible, and that in this process the memories of the past participate. The mind or soul is no product of bodily processes, but something independent, which through the body comes into contact with the world. This version of dualism or interactionism, an improvement upon that of Descartes, Bergson supports by the facts of amnesia, aphasia, and other disorders, the literature of which he cites extensively. His conception of memory is profound, and has made a considerable impression, at least upon philosophers. These two books, although significant, are difficult, and the beginner is advised to read first what Bergson himself regards as his most important book,² *Creative Evolution* (1907). The fourth book in the series, *The Two Sources of Morality and Religion*, appeared in 1932. Of Bergson's minor works, the two most likely to interest the general reader are the *Introduction to Metaphysics*, a semi-popular condensed statement of some of the more important doctrines of his first two principal books, and *Laughter*, a popular essay in which he applies his general philosophy to the interpretation of comedy.

II. THE VITAL IMPULSE

Let us therefore approach Bergson's philosophy from the standpoint of *Creative Evolution*. The term signifies that

evolution is a creative process, going on in time, not pre-determined in advance, neither by an omnipotent and omniscient Creator, nor by matter governed by mechanical laws. Evolution works out its course spontaneously under the guidance of the *vital impulse* or *vital impetus* (as *l'élan vital* is translated by different writers in English). This vital impulse is God, in the sense Bergson believes in God, which, as we shall presently see, is quite different from traditional theology.

Neo-Darwinism, in the form that it had developed under the influence of Weismann and others in opposition to Spencer, taught that variations appear spontaneously in the germ plasm (the tissue of the reproductive cells, the ovum and the spermatozoon) and are transmitted to the germ plasm of succeeding generations regardless of what modifications (acquired characters) may occur in the rest of the body of an individual organism during its lifetime. When these variations happen to be favorable to an organism in its struggle for existence, it survives, and its descendants inherit the favorable variations through the germ plasm. Bergson is willing to accept the neo-Darwinian contentions in regard to the continuity of the germ plasm and the transmission of variations through it from one generation to another. On the contrary, he is dissatisfied with Darwinian and neo-Darwinian failure to explain the origin of variations in any satisfactory way. To account for this origin, Bergson believes it necessary to revive Lamarck's conception of *besoin*, which Bergson identifies with the vital impulse. According to Bergson, this impulse produces new variations in the germ plasm and transmits them to succeeding generations. The vital impulse is not necessarily a *conscious* effort, for it is present in plants. It is not an *individual* effort, for it is common to all the members of a species, as De Vries has shown in his experiments upon the evening primrose in which mutations into new species were found to occur among many individuals at the same time. The vital impulse is common to all living

beings; it is the immanent principle directive of all organic evolution.

It follows that variations are not the mechanical effect of the direct action of the environment, as Spencer has supposed. The difference between Bergson and Spencer is illustrated by their respective interpretations of the evolution of the eye. Spencer thought that this evolution began with the mechanical impact of light upon a sensitive cell in an early organism, modifying its structure. Bergson says that the modification in the structure of the cell was due to the vital impulse operating in the germ cell from which the organism had grown. In confirmation of his hypothesis, Bergson calls attention to the striking similarity between the eye of a certain mollusc (the *Pecten*, a scallop) and man. The structure and functions of the human and *Pecten* eyes are much the same. Yet the embryonic developments of the two are quite different. In the mollusc the retina is derived directly from the ectoderm, while in man and other vertebrates the retina comes from an expansion of the rudimentary brain. Essentially the same result has been achieved in mollusc and man, although evolution has travelled over different paths to obtain it. Can we call this chance? It is more reasonable to say that the vital impulse sought to develop an eye and so to see, and reached its purpose through different routes in the two cases. Some kind of planning is immanent in living beings, and is carried on from one generation to another.³

The vital impulse links all the generations together. Through it the man of today is solidary with his remotest ancestors clear back to the little mass of protoplasmic jelly which is probably at the root of the genealogical tree of life upon the earth. The individual living being is above all a thoroughfare through which the vital impulse passes from one generation to another. The vital impulse ever presses onward, overcoming obstacles in its course whenever it can, using whatever means are available.

III. INSTINCT AND INTELLIGENCE

The vital impulse, since it began its terrestrial career in the original protoplasmic jelly, has passed along different routes, everywhere assimilating inorganic matter and building up organisms, struggling along as best it could. In the case of plants, it developed the capacity to absorb directly from the air and soil the mineral elements necessary for its subsistence. So plants in general have lost the capacity to move, together with consciousness which is closely connected with locomotion. The membrane of cellulose in which the protoplasm of the plant has wrapped itself not only prevents it from moving, but screens it from the outer stimuli which irritate the animal and keep it awake. So the vital impulse in plants has become *torpid*, not completely unconscious like a stone, but gone to sleep.

In animals, on the other hand, the vital impulse is differently directed. Animals cannot directly appropriate carbon and nitrogen from the soil and air; for nourishment they seek vegetables which have already fixed these elements, or else other animals which feed upon plants. So animals must be able to move about to find their food, and to do this they must have consciousness. *Mobility and consciousness go together.* The more active an animal is, the more consciousness it has. The development of the brain and nervous system is due to a division of labor: the vague activity diffused in the whole organism of a protozoon has in higher animals become canalized in specialized cells. Consciousness was not created by the nervous system, which is a specialized seat of what before its appearance was a confused activity of all the cells of the organism.

Vegetables, as we have seen, fell asleep, became torpid. Animal evolution proceeded in four main directions, in which the vital impulse sought more action, fuller consciousness. Two of these directions, terminating respectively in echinoderms (*e.g.*, star fish) and molluscs turned out to be

blind alleys: surrounded by hard protective sheaths and shells, movements were constrained and partial slumber ensued, although this slumber was not so profound as that of plants. Arthropods (*e.g.*, insects) and vertebrates moved in more successful directions: they were able to throw off their ancient armor and move freely. So the vital impulse attained two different kinds of consciousness: *instinct*, most highly developed in ants, bees, and wasps; and *intelligence*, present in vertebrates, most notably in man.

Instinct is the ability to use organized instruments (*bodily organs*) without having *learned*: the insect *feels* rather than thinks. For instance, one of the wasps, *ammophila hirsuta*, gives nine successive strokes on nine nerve centers of a caterpillar, seizes its head and squeezes it in its mandibles so as to cause paralysis without death. So the caterpillar lives for some days and affords fresh meat for the larva of the wasp. Other wasps paralyze rose beetles, crickets, and spiders. A man who performed such an operation through intelligence would need to be a skillful surgeon. It is nonsense to suppose that the wasp's ancestors ever studied out this surgery and acquired a habit which they transmitted to their descendants. It is equally incredible to assume that the instinct of the wasp is a happy chance combination of reflexes preserved by natural selection. No, instincts are the expression of some kind of *immediate intuition or sympathy* which the animal has for its prey, a mental capacity which human beings do not possess to an equal degree, although something analogous is found in the impulse which causes a baby to seek its mother's breast. Bergson gives other illustrations of instincts, some even more striking.⁴ Of course, instinct has its limitations. It equips an animal to do certain things through heredity; it does not afford adaptability to new conditions in a changing environment comparable to the achievements of intelligence.

Intelligence is the faculty of using *unorganized* instruments, (*e.g.*, tools made out of unorganized matter). Our very

perception of objects in our environment indicates the outline of eventual actions that we may choose to make, with the aid of tools if necessary. When we look about us, only those objects appear of which we may be able to make some use; we do not see what does not interest us in some possibly practical way. Memories surge up from the subconscious and blend with sensations at every moment to assist us in our actions. How much could we perceive or how far act intelligently if our consciousness were limited to present sensations?

The sole purpose of intelligence is to make action possible: this explains its limitations. This is why in the operation of intelligence our minds are unable to perceive a *movement* in its continuity. We have to break it up into a set of static positions which are not movements at all. This procedure assists us, although only imperfectly, to imitate the movements of another. To take for once an illustration that is not Bergson's. Suppose that a boy is trying to learn to pitch a baseball. He watches a skillful pitcher, notes the posture of the pitcher, the grasp of the ball in his hand, the places occupied by the ball in successive moments of its curved flight, the point where the course of the ball terminates. When practising himself, the boy tries to put himself into the successive positions and motions of the pitcher as he recalls them from his static memory images; he then throws the ball, and observes how far its course corresponds to that of the pitcher's throw. Yet the pitcher's throw was not in reality a combination of static positions, provided he was really a good pitcher. It was one continuous movement from the instant that he raised his arm until he released the ball from his hand. The boy will never learn to pitch a ball well until his play is also one continuous movement, and not a jerky combination of different positions.

Our intellects constantly reduce motion to a combination of immobilities in the manner of the boy. We say, for instance, that a train moves at the rate of forty miles an hour:

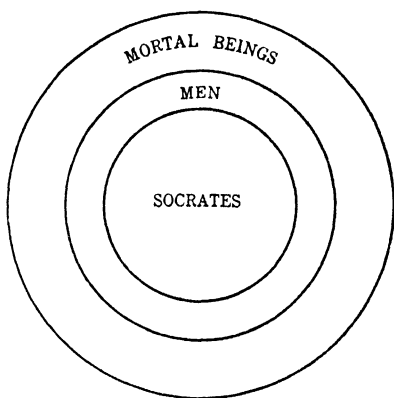
as if it first covered a single static spatial distance of one mile, then of another, and so on. We falsify the real nature of movement, duration, when we break it up into static intervals. Intelligence works like a moving picture apparatus—this is one of Bergson's favorite analogies. The cinematograph takes a large number of instantaneous photographs in which there is no motion at all. These are thrown with great rapidity upon a screen, and out of these successive immobilities the spectators receive the illusion of movement. (This comparison was a very happy one, in 1907, when the *Creative Evolution* appeared, and readers recalled the jerky effects upon the screen of that time. It is still sound in principle, although now the illusion of movement is complete.)

Zeno's paradoxes, according to Bergson, are ancient sophistries based upon the delusion that motions are composed of static units. An arrow must be at rest if it occupies any space at all, and if thus at rest, it cannot move; so motion is impossible. Achilles can never overtake the tortoise, because after the tortoise moves over a certain space, Achilles must traverse this space while the tortoise is moving over another space. In reality, however, Achilles' movement is not broken up into static places at all; it is continuous. Two chariots passing a stationary stadium in opposite directions move at different rates, depending upon whether the motion of each is measured by the position of the other or by that of the stadium. All of Zeno's paradoxes are founded upon the supposition that time is made up of separate movements in space. Real time is continuous duration; it has nothing to do with space at all. Yet for practical purposes it is convenient for us to perceive and think of the world as composed of separate objects at rest in different portions of space, and to measure movements in terms of static intervals. It works to do so; it enables us to act; but it falsifies reality. A map is very useful, it helps us to find our way about. Yet no map is an adequate representation—except for limited purposes—of the region which it symbolizes.

Man is a social animal. He needs to communicate with his fellows. So he uses *words* (symbols, a kind of tools), and develops languages. Insects are social, too. But they communicate by instinctive sympathy, a common feeling holds them together in their undertakings, their signs are few, and they do not need words. That is because they do nothing new: their undertakings are the same as those of their ancestors, and they do not use tools. Man, on the contrary, keeps doing new things, in which he needs the help of his fellows. So man has invented words. Words are mobile tools, not attached to the objects which they designate.

Concepts are a good deal like material objects in space. Our conceptual thinking goes on in spatial analogies. Take the syllogism: "All men are mortal, Socrates is a man, therefore Socrates is mortal."

The imagery here is that Socrates is an object enclosed within a space, "men"; while "men" is enclosed within a still larger space, "mortal beings." What is within a smaller space must be within a larger space that includes the smaller space. This is well



brought out by the circles used to illustrate formal logic. All logical reasoning, whether of inclusion or exclusion of terms or of other types of relations—"greater than," "less than," "equal to," "convertible," etc.,—implies spatial comparisons of some kind or another.

All this is very useful for practical purposes to enable us to adjust ourselves to the material objects of the outer world as they enter into our perception and thought. But it is not the real truth of the outer world. Still less is it true of ourselves: when we try to look within, and to understand ourselves, we try to spatialize our own inner life, which is not

spatial at all and can be understood only intuitively, not reflectively. That is why we think that our deeds must be the effects of causes, and why we doubt whether our wills are free. Our inner life is not in space at all, and is not subject to scientific laws of causation.

On the contrary, our inner life is an unceasing, ever-changing, constantly-expanding flow or duration, in which the past marches along with us through the ever-passing present into the as yet undetermined future. This truth we can grasp intuitively. Our intuition of *free will* is justified. The future is open before us, and our whole self decides our action. In this sense our wills are free.⁵

The vital impulse has been only partially successful in its terrestrial evolution. It became torpid in plants, fell into slumber in echinoderms and molluscs, and attained instinctive insight in insects only at the cost of confining itself to inherited knowledge. In man it has gained considerable control of nature through intelligence, but at the sacrifice in large measure of instinct and intuition. If man can continue to use intelligence for immediately practical needs, and yet in philosophy regain something of the intuitive insight into life and real duration that his ancestors have lost, the course of the vital impulse will become more successful, and man will gain richer freedom and fuller life. (This last sentence will become clearer if reviewed after reading the concluding section of this chapter.)

IV. LIFE AND MATTER

The latest scientific theories of *matter* reduce it to motion, —velocities of one kind and another. The atom is no longer thought of as a bit of hard, unchanging substance: it has become a little cosmos of motions, electrical charges. Motion used to be attributed to inert objects; now it is realized that it is motion that produces objects. The new scientific interpretation is difficult for the layman to grasp, because of the inveterate tendency of our intellects to think statically, to

measure motion in spatial terms and make it a succession of immobilities.

The motion of the external physical world tends to run down, in accordance with Carnot's law of the degradation of energy. Higher forms of energy in our solar system are gradually degenerating into heat and then being radiated off into space. *Life* is a process opposite to that of degenerating matter. On our planet, life attempts to store up some of the energy that is going to waste and make it available. Vegetables gather in the solar energy and store it up in their cells, much as energy going to waste in a waterfall is stored by a hydroelectric plant, in order to be released and turned to useful purposes later on. Animals feed upon vegetables and store up energy in their own bodies, and utilize it in their actions. The vital impetus, in other words, has evolved plant and animal organisms through snatching upon solar energy and conserving it. In a sense, therefore, life is an *upward movement* in opposition to the downward movement of matter. The different forms of life represent the various stages through which the vital impetus has passed in this upward movement. Life may be regarded as essentially a current sent through matter, drawing from it what it can. Everywhere except in man the vital impulse has become blocked; only in him has it been able to keep on its way, and even in his case intuition and instinct have largely been sacrificed to intelligence. Organic evolution on the earth might be regarded as if a vague and formless being (the vital impulse) had sought to realize itself and had succeeded only at the cost of abandoning part of itself on the way.

In this view of life, Bergson *rejects mechanism and materialism* as explanations of organic evolution. Life is in no sense a product of matter. It is an opposite current that builds up organisms out of matter. Bergson *also rejects* what he calls *finalism*, i.e., all types of teleology which suppose that organisms appear in accordance with a *fixed plan*, whether this plan is conceived theistically as that of a Crea-

tor, or is thought to be a rational law of arrangement in the organisms themselves (Aristotle, Driesch, and others). No, the vital impulse is not matter acting according to chemical laws, as mechanists claim. And it is not a predetermined rational plan. It proceeds in its creative activity as a poet or an artist. Or, to take a more commonplace illustration, but one more familiar to most of us, that of a college student preparing an essay on some subject requiring both reading and reflection, and also original thought and treatment. The student does not ordinarily have a detailed plan of his own all worked out in advance before he begins his investigation. His thoughts develop as he proceeds; the subject gradually grows in his mind. He makes and modifies his plan as he goes along. His essay may turn out to be a brilliant piece of work for which he receives high commendation. But before he started, he could not have predicted just what he was going to write. This is analogous to the manner that Bergson believes the vital impulse advances on its way. Bergson gives no name to his interpretation of evolution to mark it off from the mechanism and finalism which he rejects. Others have sometimes called it *immanent teleology*, which is perhaps as good a name as any, and not ambiguous if carefully explained.

Bergson believes in a growing universe, so far as the activity of the vital impulse is operative. *Mechanism* regards every activity whatever, including that of living beings, as predetermined in the *past* by fixed laws, so that, as Bergson expresses it, *nothing really new ever happens*, but only different combinations of what is already present (atoms, electrons, or what not). *Finalism* is only mechanism reversed: the present is predetermined by some fixed *future* plan or goal, to which the whole creation moves: evolution is a cut and dried affair; there is no novelty, no spontaneity, no freedom. As opposed to both mechanism and finalism, Bergson believes that "the gates of the future are always open"; life can produce novelties, make fresh creations, advance on uncharted seas devising

charts for itself as it sails along, and change its course whenever it pleases. If an historian of past human events traces out their succession in what seems to him to have been an inevitable causation, he deceives himself. If he were really able to do that, he would also predict future events with accuracy, as in fact astronomers and physicists do to a considerable extent—dealing as they do with inorganic matter in which nothing new ever happens. It is just because the vital impulse is active, creating novelties, that the future of living beings is never a mechanical repetition of their past, and prediction is impossible.

In most of what Bergson has written, he appears to be a *dualist*. In *Matter and Memory*, matter arranged as images is presented through the brain to the mind for action in execution of choices effected with the assistance of relevant memories which emerge into consciousness. This certainly appears to be interaction between mind and matter, a form of dualism. In *Creative Evolution*, the vital impulse is described as moving in the opposite direction to matter, building up organisms out of matter, and in these organisms storing up energy that is running down. This point of view certainly suggests a sharp dualism between the vital impulse and matter, neither of which is produced by the other nor reducible in any way to it.

On the contrary, there are a few passages in which a *monistic* tendency seems to be present in Bergson's thought, and the apparent dualism to be overcome. All reality is duration,—time unlimited by space, growing, expanding, free, unconditioned. The matter of physics and the material objects of common sense are not real; they are only falsifications of real motion, falsifications made for us by our brains and our intellects for merely practical purposes. Real duration in the outer world is not in sharp contrast to what it is in ourselves.

This monistic tendency is present in one of the most fascinating, although also one of the most obscure, passages in

Bergson's works,—the closing portions of Part III in *Creative Evolution*.⁶ Imagine a vessel of boiling water from which steam arises into the air, condenses into drops and falls back again into the vessel, where it again becomes steam, once more arises into the air, and falls back into the vessel,—an unending cycle. Now, further, imagine persisting within each drop of water during its downward course a little of the original impulse that previously drove the steam upward from the vessel, and that this persisting impulse starts a current within the drop in a direction contrary to its fall. In this allegory, each drop of water corresponds to a planet or a star. The downward fall of the drop is the degradation of energy. The persistent upward impulse within the drop is the vital impetus which moves in the opposite direction to matter, stores up energy and evolves living beings.

Here in our solar system energy is running down, and the system is doomed to eventual dissolution. In the meantime, however, a brilliant course of creative evolution is taking place upon the earth, and probably upon each of the other planets, and possibly upon the sun itself. While our solar system is gradually moving toward dissolution, elsewhere in the heavens other systems appear to be evolving from nebulae. Evolution and dissolution may be unendingly following each other everywhere in the universe, in a perpetual succession of cycles. On every heavenly body the vital impulse may be able to store up energy in living organisms, in many of them organisms with altogether different chemical constitutions from any that we know or can imagine. There may be no limit to the future progress of the vital impulse; it may eventually beat down all obstacles in its way, even death.

If it is one of the functions of the philosopher to study the sciences carefully, and to think out speculative possibilities that are conceivable although not at present confirmable by scientific observation; if, in other words, the philosopher should mediate between the scientist and the poet and use his imagination freely: then certainly Bergson has

performed this function. In his interpretation of the future possibilities of creative evolution, he has presented an interesting possibility that may be true, and that we should like to believe so.

V. MORALITY AND RELIGION

In *The Two Sources of Morality and Religion*, Bergson extends his philosophy of evolution to these subjects. The vital impulse is God, or comes from God, is God operative in evolution. God is present in all life, and He has reached a higher level of attainment of His purposes in us than in other organisms on the earth.

In man there is an instinctive urge toward social coöperation and altruism: this comes from God. However, when man first gained intelligence, there was serious danger that his intellectual power would render him intensely selfish, that he would use his newly acquired reason for individual ends detrimental to society, and contrary to the purposes of the vital impulse. To prevent this disaster, nature caused individual men to feel themselves confronted by the will of society as expressed in customs, mores, taboos, to which they felt constrained to submit. These were strengthened by religious beliefs and practices believed to be commanded by gods who required human obedience. So the rise of the early religions with their mythologies kept individualism in check, and afforded time for the social urge in man to grow stronger, as he became more enlightened and better realized his common interests with his fellow men. Thus Bergson combines his own philosophy with the view of the sociological school of Durkheim and others who attribute the origin of religion to social control and collective representations passed down in tradition. He goes much more thoroughly into the psychological and sociological processes involved than can be indicated here. This, then, is the *first* of the two sources of morality and religion—a conservative influence, which kept newly acquired intelligence from becoming destructive.

Later on in human social evolution, an opposite danger arose. The weight of custom was liable to hold mankind back, both by its inertia and rigor, and by lack of deep inward emotion and aspiration. Freedom threatened to be lost. Progress became almost impossible. This danger was averted by the *second*, higher source of morality and religion. This source is *intuition*: the great saints and mystics and the moral leaders of mankind have gained insight into the vital impulse itself. They have entered into personal communion with God, and in consequence become influential reformers, able to inspire other men with some of their own insights into love and justice. Thus we are to interpret the higher religions of mankind. In this second source of morality and religion, Bergson quotes William James, Evelyn Underhill, and other authorities on mysticism and the psychology and philosophy of religion, to show that, despite the theological differences and types of imagery found among the great mystics, all fundamentally agree in testifying that they have come into contact with a deeper spiritual reality than the rest of men have known. In gaining this sense of spiritual reality, of union with God in pure duration, untrammelled by spatialized time, the mystics won freedom and inner certitude: some of them became the great spiritual leaders of mankind. While only a few are capable of such deep inward experience, most men have felt something sufficiently approximating it to react sympathetically to the mystics' testimony, and to follow in some measure their leadership.

Bergson believes that religion can do much to further the progress of mankind. We need a much more spiritual, social, and democratic society, free from wars and industrial disputes, in which mankind can live in love and humanity. He thinks that human personal immortality is not only possible but probable, and he hopes that psychical research will ultimately demonstrate this truth scientifically. Such assurance would spread joy throughout the world. At any rate, we men should awaken to the realization that the future is in our

own hands, and that we can attain a better life in this world if we make the necessary extra effort.

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CHAPTER XXIV

SAMUEL ALEXANDER

I. INTRODUCTORY

Samuel Alexander (1859–1939) occupies a place in the history of modern philosophy for several reasons. His *Space, Time and Deity* is the most comprehensive and systematic treatise that has thus far appeared in the twentieth century. He is a brilliant interpreter of two new tendencies in the philosophic thought of the century,—the new realism and emergent evolutionism. He presents the new realism in a concrete setting, whereas most of its supporters treat it only in its abstract logical and epistemological aspects. His version of evolution has suggestive features, original with him, and marks an advance beyond Spencer and Bergson in many important respects.

Alexander was born in Sydney, New South Wales, and received his education in the University of Melbourne and in Balliol College, Oxford. At Balliol he won many prizes and honors, and after graduation served for several years upon the faculty as a fellow. He was professor of philosophy at the University of Manchester from 1893 to 1924. The Oxford of his time as student and fellow was mostly neo-Hegelian, and, like Dewey, Alexander began his career as an idealist influenced by the naturalistic biology of Darwin, Huxley, and Spencer. However, his academic environment was quite different from that in which Dewey arrived at his definitive philosophy. In consequence, Alexander's earlier idealistic and naturalistic thought, enriched by the new realism and the relativity theories of Einstein and others, gradually ripened into a metaphysic. This metaphysic offers solu-

tions for the ultimate problems of reality, regarding which the practical mind of Dewey has been indifferent.

Alexander worked patiently at metaphysics for many years, publishing articles in philosophical journals, and reading papers before the Aristotelian Society. At last he presented his completed system in his Gifford Lectures, delivered at the University of Glasgow between 1916 and 1918, and published as *Space, Time and Deity* in 1920. He at once became famous. He was given honorary degrees by several British universities, became a Fellow of the British Academy and received the Order of Merit. He is reputed to have been a stimulating lecturer and a brilliant conversationalist. His writings reveal a kindly, sympathetic spirit, combining profound insight into the philosophical implications of the new developments in the sciences with high appreciation of literature, art, and poetry, and modesty regarding his own attainments. *Space, Time and Deity* is difficult reading, owing to its subject matter, but every point is illustrated aptly and concretely. *Beauty and Other Forms of Value* is a delightful literary presentation in more popular form of his interpretation of the values of beauty, truth, and morality.¹

II. THE NEW REALISM

The neo-realistic movement was initiated in England early in the present century by G. E. Moore, Bertrand Russell, and others. We have seen it to some extent operative in the thought of William James. Six of its American advocates—E. B. Holt, W. T. Marvin, W. P. Montague, R. B. Perry, W. B. Pitkin, and E. G. Spaulding—published in 1912 a series of essays entitled *The New Realism*, and each has subsequently contributed further studies on the subject. The new movement rapidly won converts among the philosophers of both countries.² Among these, as we have seen, was Alexander.

Alexander thinks that wherever consciousness exists, an

organism is *compresent* (present together) with other things. These other things are not affected by the compresence of the organism. When I perceive a table, the table is compresent with me (who am an organism possessing consciousness). My consciousness does not alter the independently existing table in any way; it merely perceives the table in the perspective which the table has at the point of space which I occupy at the instant in time when I perceive it. The table, to be sure, has other perspectives at other points of space and instants in time which I do not perceive; but what I do perceive is a portion (a perspective) of the real table, not a mental copy of it. Berkeley and Hume were right in affirming that every physical object exists independent of our minds, and that we directly perceive the object itself and not a representation of it; they were wrong chiefly in their supposition that the object is mental in its character (an "idea" for Berkeley, an "impression" for Hume).

Alexander carries new realism to extreme conclusions. Suppose that Alexander, now in Manchester, recalls in memory the view of Florence that he once saw on the way down to the city from Fiesole. Alexander's mind experiences the real Florence as it was when he saw it, not an idea or image of it. He knows the past immediately, not through a representation of any kind. Even illusions are real things which the mind has not created, but has somehow misplaced or distorted. The mind creates nothing new; even in imagination and reasoning it merely rearranges things that exist independent of the mind. The mind itself is simply a novel, emergent organization of existing things. Hume would have been right in calling the mind merely a bundle of impressions if he had not made the mistake of supposing that these impressions are purely mental, instead of independently existing things.

Thus far, Alexander's version of realism is similar to those of the other new realists of the extreme type. However, there is a group of milder realists who call themselves "critical new

realists." Among the Americans of this latter group, seven—Durant Drake, A. O. Lovejoy, J. B. Pratt, A. K. Rogers, G. Santayana, R. W. Sellars, and C. A. Strong—published *Essays in Critical Realism* in 1920, in which they agreed with the new realists that the objects of the external world are real, and exist independent of our consciousness, but they refused to apply the realistic doctrine in the sweeping way of the extreme realists like Alexander to memories, fancies, and illusions. Some critical new realists have become epistemological dualists and believers in a representative theory of knowledge which distinguishes between mental states and physical objects, somewhat reminiscent of Locke. It is possible to be a realist, in sympathy with most of Alexander's system including his conception of emergent evolution, without accepting his extreme version of new realism.³

A feature peculiar to Alexander's own realistic theory of knowledge is his distinction between *contemplation* and *enjoyment*. I contemplate objects about me, as mere things, external to me and to one another, and I contemplate parts of my own body when I look at my hands and my feet. But when I play a game of tennis I enjoy the inner thrill of my movements, as well as contemplate them. When I contemplate a landscape, a poem, a work of art, I also enjoy my own emotions with reference to them. The term *enjoyment*, as employed by Alexander, includes not only joy, but also grief, sorrow, indeed *every inner state or process through which the mind passes in its inner life*. While, then, the mind is merely the body and external objects compresent with it, organized in a peculiar manner, it exercises the two functions of contemplating external objects compresent with the body in perception, memory, imagination, and reasoning, and of enjoying its own attendant inner processes. It cannot contemplate itself; if it attempts to do so, it merely observes an unending succession of objects; Hume was right in saying that he could never perceive (contemplate) his self. On the other hand, the mind can enjoy itself, feel its activities

inwardly: this is the element of truth in what Descartes was trying to say when he insisted upon immediate consciousness of his self which he could not doubt, and in what Berkeley affirmed when he said that we have notions but not ideas of the self.

In arriving at the positions mentioned in this section, Alexander believes that he is following the British empirical tradition to the extent that he is reporting only what everyone can observe and verify as his own experiences of himself and the world about him. But the earlier empiricists were wrong in supposing that immediate experience consists of *sensations* (*mental states*). Immediate experience is not of successive mental states, but of *sensa* (real objects compresent with oneself in sensation), as well as of objects compresent in memory, imagination, and reasoning.

III. SPACE-TIME AND THE CATEGORIES

According to Alexander, *the primordial reality*, from which all things have evolved, and of which they still consist, is *Space-Time*. This conception of Space-Time would hardly have occurred to Alexander if he had not been acquainted with the relativity theories of Einstein, and Bergson's doctrine of duration, real time. However, Alexander has reinterpreted these conceptions and given them a new significance. Nothing, for Alexander, exists in the world that is not both spatial and temporal: "space is full of time and time is full of space." Purely empty space would be devoid of contents; it would be nothing at all. Purely empty time would be equally insignificant; in it there could be no duration and no succession, because there would be nothing to endure or to be followed by something else. Real time is a succession of instants, each of which occupies space. There could be no distinction in time between present, past, and future without reference to points in space by which events could be dated. The perspective of a far distant star in a point upon

the earth at the present moment is at a different time from that of the star in its own immediate space,—perhaps a difference of years if the star is far enough away. What is present, past, or future in the perspective of the star depends upon the point in space from which the perspective is reckoned. Yet this reckoning is not something mental: the conditions would be just the same whether or not any mind were on the spot to calculate them.

Time consists of an infinitude of instants, each of which is separated by still other instants; and each instant itself is a tiny duration, not static. Space consists of infinite points, each of which is separated by still other points, and each point itself has dimensions: for infinite space could not be composed of points with no magnitude at all.⁴ So far as there is any ultimate unit of Space-Time, this is the pure event, the *point-instant*, the smallest bit of space occupying the shortest stretch of time.⁵ Time is not the fourth dimension of space.⁶ Time has only one dimension, but this dimension is its own, and every instant within the infinite course of time occupies the whole of space: while every point in space endures throughout infinite time. Nothing in the universe is at absolute rest; everything is in movement of some kind within Space-Time. Like Bergson's, Alexander's world is in perpetual transition; but unlike Bergson, Alexander insists that space is equally real with time, and indeed indispensable to it.

While everything is in perpetual change, rapid or slow as regards its *qualities*, there are some characters which things never lack: these characters are the *categories*. The categories for Alexander are *not* due to the constitution of the mind as Kant supposed, although Kant was right in believing them to be *a priori*. Alexander affirms that the categories are *a priori*, universal and necessary aspects of all things that ever appear in the world: and so, of course, they are features of all events in human experience, mental as well as physical. With the earliest emergence of separate things, the categories

are present, pervasive everywhere, because they are fundamental properties of Space-Time.

It will be possible here only to mention Alexander's list of categories, to each of which he devotes a careful analysis. The most complex category is motion, which includes all the others and presupposes them. The major categories are existence, universality, relation, and order. Subordinate to these are substance, causality, reciprocity, quantity, whole and parts, and number. These categories afford the world stability and regularity, and make science possible. Without them the world would be a flux in which nothing would be predictable. For a homely illustration of the category of substance, let us think of a piece of wax, which when melted loses its former shape but retains its substance. If a substance produces a change in another substance, there is a relation of cause and effect. If two substances make changes in each other, there is reciprocity between them. Such changes in substances are subject to laws which can be observed and formulated in sciences. The categories apply to minds as well as to material objects. Minds occupy space, they pass through time, they are subject to laws of causation and the other categories. Space-Time is the primordial stuff of all things, and all things are determined by the categories. So, while Alexander's universe is one of motion and change, it is subject to categories which afford it order and regularity: it is not a chaos.

IV. EMERGENT EVOLUTION

Space, time, and the categories, as we have seen, have properties that can be stated *a priori* and that hold of everything in the world. However, in addition every existent thing that we experience has qualities which cannot be deduced from space, time, and categories, and can be ascertained only by empirical observation. At each new level of emergent evolution, novel qualities are added, while those of lower levels are retained.

Perhaps the best way to approach the notion of *emergence* in evolution is to contrast it with Spencer's *reductionism*. As a reductionist, Spencer sought to describe all evolution, whether of inorganic matter, of living beings, or human minds, or of human society, in the same mechanistic terms—reducing everything to integrations and differentiations of matter and motion. The emergent evolutionists believe that Spencer was right in one respect and wrong in another. Spencer was right in affirming that everything, including our own minds and bodies, is an organization of matter and motion: there are no disembodied spirits. Spencer was wrong in thinking that this tells the whole story. He did not realize that life, for instance, has *unique qualities* that cannot be reduced to the properties of inorganic matter. To be sure, there are no chemical elements in an organism that do not exist in inorganic matter: so far Spencer is correct. But an organism has unique functions—digestion, circulation, assimilation, excretion, reproduction—not found in the inorganic world.

If, previous to the first appearance of life upon the earth, some intelligent being from another part of the universe could have visited the planet and gained complete knowledge of all the principles of physics and inorganic chemistry, he could not have predicted from this knowledge that if chemical elements were once to be combined in the proportions that exist in protoplasm, the latter would have the unique functions that organisms possess and would in time evolve into the present inhabitants of the earth. The supposititious visitor might conceivably have been able to predict all the combinations of atoms and molecules that have taken place subsequent to the emergence of life, or that shall take place in the distant future; but he could not have foreseen the emergence of living beings with minds who would form societies, make war and peace, and produce art and literature. It is impossible, contrary to Spencer and other reductionists, to explain in terms of matter and motion the

emergence of new levels like life and mind; the scientist should acknowledge such emergences are simply facts which actually take place. On the other hand, emergent evolutionists are not dualists like Bergson: they do not think of life as an independent entity operating in the world in a direction contrary to matter. Life is simply matter organized on a new level, retaining the properties that matter previously had, but in addition possessing new qualities not present in inorganic matter.

The emergent evolutionists vary somewhat among themselves as to the number of distinct levels of emergent evolution, but they usually agree upon at least three: inorganic *matter*, lower forms of *life*, and life possessing *minds*. Alexander is a little hesitant as to how many levels there are, but he is positive that thus far upon the earth there have been not less than five, and he anticipates the future emergence of a sixth, and possibly an indefinite number more.

The *lowest* level for Alexander is *Space-Time*, characterized only by the categories, the universal stuff of which all things consist. This level we contemplate in *intuition*, a kind of direct common sense apprehension comparable to what Kant meant by *Anschauung* (a word sometimes translated as intuition, but which in the chapter upon Kant in this volume was called perception), and by which Kant thought that we know space and time.

Next higher, Alexander designates the level of matter with the *primary qualities*, characteristic of material objects by themselves. These we contemplate through *sensations of more than one sense organ*. The primary qualities include size, shape, number, and motion. Alexander is in doubt whether to add mass, inertia, and energy to the list of primary qualities, or to attribute them to another level called matter, which if so separated would be an intermediate level between the primary and secondary qualities. At any rate, mass, inertia, and energy are qualities contemplated through the *sensation of resistance* offered to our bodies.⁷

The *third* level of emergent evolution (on the assumption that mass, inertia, and energy belong to the second level, the primary qualities) is that of the *secondary* qualities (color, sound, odor, temperature, etc.) We contemplate each of the secondary qualities through a different single sense organ,—color through the eye, sounds through the ear, etc. The secondary qualities are real, independent of our minds for their existence, but they do not inhere in an object by itself, as the primary qualities do, but belong to the object in relation to its surroundings: to light in the case of color, to air in that of sound, and so on. This is an interesting compromise between Locke and Berkeley. Both primary and secondary qualities are real, independent of the mind, but they do not have precisely the same status in the external world.

The *fourth* level of emergent evolution is that of *life*, which possesses the unique qualities found in organisms in addition to the qualities of lower levels. Organisms possess no separate stuff not found in the inorganic world: they are simply matter organized in a distinctive manner. Life we contemplate through the *organic and kinaesthetic senses*: e.g., the motions of our muscles, and sensations of hunger and thirst which are quite different from sounds and colors, and are correctly located in our bodies. As a realist, Alexander believes that these sensations of life are our direct apprehension of processes actually going on in our bodies, independent of our minds. They are events in the real world.

The *fifth* level is that of mind. The qualities of this level *are not contemplated by us at all*. They are *inwardly enjoyed* in ourselves, and are inferred by us through sympathetic imagination to be similarly enjoyed by other persons. Alexander suggests that beings on the level of life which have not reached the level of mind enjoy life inwardly, and do not contemplate it as we do. When beings shall reach the next level above us, that of Deity, the deities will enjoy the distinctive qualities of that level, and they will contemplate the qualities of mind which we enjoy.

The *sixth* level, not yet reached upon the earth, is that of *Deity*. Of what this level will consist, we can form no idea, except that it will be an advance upon previous levels. We think of this level in the singular as *Deity*; but once it shall have come into existence, there will be many individuals on this level—deities. Alexander's conception of *Deity* must be carefully distinguished from his conception of *God*, as will be seen as we proceed. Once the level of *Deity* has been reached on the earth, it is possible that a still higher level will be in prospect, which will *then* be conceived as *Deity*, and the level *now* called *Deity* will receive a more specific designation—"angel" might answer. Alexander most often uses the term *Deity* for the particular level next above our own level of mind. However, he frequently employs it to denote whatever level is next higher to those at the time in existence. It is usually easy from the context to determine which use of the term he intends. Sometimes he also uses "mind" in a relative sense, as the next higher level beyond which a particular order of beings has as yet attained and to which it strives; *e.g.*, life is the "mind" of matter on the level of the secondary qualities. He even speaks in this way of time as the "mind" of space, since it is in the further duration of time that space will reach higher levels, and time is the forward-impelling aspect of primordial Space-Time. Moreover, he sometimes refers to *Deity* as "the mind of God," since *Deity* is the higher level which *God* is now striving to bring into existence upon the earth.

Sometimes when Alexander speaks of one level as "higher" than the one preceding it in order of existence, the designation seems to be merely one of temporal succession. Often, however, he is more teleological: the whole existing universe presses forward to effect the emergence of the higher level. Some interpreters of Alexander think that, since the qualities of a higher level cannot be predicted in advance of its emergence, his general point of view is indeterministic so far as emergent evolution is concerned, although the categorial fea-

tures of Space-Time, common to all levels, are unquestionably determined. On the other hand, it must be remembered that once a higher level has emerged, it is possible to state the conditions which effected it, and to predict that whenever these conditions again occur, the same higher level will emerge, with the same qualities. For instance, we now know the requisite chemical combinations for the emergence of protoplasm with the characteristics of life: consequently the artificial manufacture of life is theoretically conceivable. So far as the present and the past are concerned, perhaps it would be safe to say that Alexander's view is deterministic. It is a matter of interpretation whether Alexander, like Bergson, believes that the gates of the future are always open, and the course of subsequent events undetermined; or whether the order and nature of future levels is fixed, but cannot be predicted by individuals on the lower levels now present upon the earth.⁸

V. VALUES

Values for Alexander are *tertiary* qualities. They are not qualities of objects in themselves like the primary qualities, nor are they qualities of objects in relation to their surroundings like the secondary qualities. Both primary and secondary qualities have their full existence independent of minds. *Values*, on the contrary, *depend on relations between objects and ourselves*, and could not exist independent of minds, or at least of organisms. The most important values which philosophy needs to consider are *truth*, *goodness*, and *beauty*, although there are other values, like health and economic utility.

Truth is a fact related to a mind that knows the fact. Truth is *reality possessed by minds*. Much of reality is not now possessed by minds, and so is not truth; but our knowledge grows. Truths are acquired by the coöperation of minds, and by experiments. One way of testing truth is the *prag-*

matic method: ideas that work in the manner predicted of them are true. But that is only because truths are coherent with reality and disclose to us what reality is. Alexander accepts the *coherence* theory of truth and puts it on a realistic basis. Reality is Space-Time as a coherent whole, with all its complexes and parts and emergent levels. When we judge about reality correctly, our judgments are coherent with one another and with those of other persons, because reality is coherent. Judgments that are contradictory with other judgments and experiences are incoherent, and so we know them to be false. Pragmatists are right in believing that there are no truths apart from minds, and in affirming that truths accumulate as knowledge grows, because the amount of reality possessed by minds keeps increasing. But in opposition to pragmatism, Alexander maintains that truths are discovered and not manufactured by minds, and that truths never change. What was once true remains forever true of the facts at the time and place where they occurred.

Good for Alexander is a wider term than moral good. We might speak of whatever brings pleasure to animals and makes for their survival as good for them. Among human beings we may regard such gifts of disposition as physical courage and calmness of temper as good. But *morally good* is somewhat narrower, and implies that all impulses and passions are regulated in the interests of the individual's ultimate welfare, and in accordance with that of other persons. A man may owe duties to himself. But moral goodness for the most part is concerned with persons in their relations with one another in institutions like the family and the state. In a sense there is progress in morals, and what was good in one set of circumstances may be bad in another. But what was once good remains good for the circumstances under which it was good. In that sense goodness never changes. No one is wholly good, but Alexander supposes that, roughly speaking, three-quarters of us are probably good for three-quarters of the time. *Evil* is misplaced good: badness is the

mixing-up of elements, getting them out of places where they would be coherent with one another, just as dirt is matter in the wrong place.

Beauty, by which Alexander means aesthetic value in general, including ugly objects that possess it, can be contrasted with percepts and illusions. As opposed to percepts, beauty appears illusory because the beautiful object does not in external reality independent of minds contain the characteristics imputed to it aesthetically: *e.g.*, a tree in a painting looks solid; Hermes in a block of marble looks as if he had repose, playfulness, and dignity. We read our minds into natural objects, see daffodils outdoing in glee the waves which dance with them, fancy the straight stem of a tree as springing from the ground and liken it to the youthful grace of a girl. Yet all this is not illusory in any literal sense; it is not erroneous; we are not deceived by it as we are by an hallucination. Beauty is in part due to objects deemed beautiful. It involves a union between the mind and perceived objects, in which the mind takes the initiative. The creator of a work of art actively makes changes in materials in order to produce in them the partial illusion which we call beauty. The person who appreciates the beauty of a work of art must to some extent imaginatively take the attitude of the artist himself.⁹

All these three values—truth, goodness, beauty—in different ways involve unions between minds and objects. In *truth*, the mind *contemplates* external reality, in the manner that it exists independent of minds, and becomes truth when known by minds without being modified by being known. In the case of *goodness*, the mind *alters* external objects in order to carry out its purposes with reference to them. In the experience of *beauty*, the mind does not follow reality as in truth, nor mould reality to its own purposes as in the good, but it *imputes* to external objects its own moods and values. All three kinds of value are *social* and have *objective standards*: they imply the coherence of the judgments of other persons

with one's own. None of the three is subjective in the sense of being the whim or caprice of any individual. We cannot find in values the ultimate clue to all reality. Values, although they include what is of most importance and interest to us, cannot be used to measure all reality, nor can we assume that the universe is necessarily determined by them.

VI. FREEDOM

The freedom of the will, Alexander interprets in a deterministic manner reminiscent in some ways of Hegel and in others of Spinoza. I am free when I enjoy myself as willing. I am not free when forces impel me of which I am unaware and whose inner nature I am unable to enjoy, as when I act under physical compulsion. An unaccountable outburst of anger makes me feel unfree because I am unaware of any determining mental state. However, the feeling of unfreedom does not exclude moral responsibility: *e.g.*, a drunkard may be accountable for an act of which he is partially unaware, because his previous conduct brought him into his state of enslavement.

There are *two senses of human freedom*: first, when it simply means *absence from external compulsion*, so that a man's actions are caused by his own impulses, and in this case he is morally responsible for what he does; *secondly*, when his conduct is determined by his character on all its sides, and is *the expression of his whole self*, what other writers have often called "ethical freedom." A man whose actions are determined in this second sense by his integrated personality is a good man, because his acts are coherent with one another and with the interests of society. Both the bad and the good man are free in the first sense, and both are morally responsible. Only the good man is free in the second and higher sense of freedom.

Thus far, Alexander's treatment of freedom is similar to that of Hegelians and self-determinists generally. He fits it

into his general philosophy of evolution in an ingenious manner. Each level in some sense enjoys its own activities and contemplates those of levels beneath it. Thus the atoms are free with reference to their own motions, while they contemplate Space-Time by which they feel determined. The plant—which is on the level of life but lacks that of mind—enjoys its own processes, which to us—who contemplate them from the level of mind—appear determined. The angel or deity who contemplates our mental processes from his own higher level sees them as determined, while he knows that we on the level of mind enjoy them as freedom. This reminds us of Spinoza when he said that if a stone thrown through the air could be supposed to be conscious of its own movement but unaware of the hand which had tossed it, the stone would feel free.¹⁰ It is debatable whether Alexander has satisfactorily reconciled the Hegelian self-determinism mentioned in the preceding two paragraphs with this more or less Spinozistic conception of determinism.¹¹

VII. RELIGION

Deity, as we have already seen, for Alexander is the next higher level in emergent evolution to the one that has at present been attained. Deity is not in the past, pushing evolution onward; it is in the future, not yet become actual, God in the making. God, as He now is, is quite different from Deity. God is *the whole present world* pressing on to the attainment of Deity. The existing world is the body of God, with a *nisus*—an effort—in the direction of Deity. God is in a sense infinite, omnipresent, and eternal, since He includes all that has been and all that now is, and in the future He will include all that shall by then have come to be. It is manifest that for Alexander, God is *not* the original Creator of the universe, nor the ultimate ground and cause of everything. The universe has had no external Creator: it produces itself as it evolves. The ultimate ground and cause

of all things is Space-Time, which Alexander never identifies with God.

The God of religious consciousness and worship is the whole universe with its nîsus toward Deity. The experiences of religious worshippers should be regarded as in some sense due to God. The world as a whole in its forward movement (God) acts upon our bodies and minds; our religious sentiment is our feeling for this whole. Man in his religious experiences is coming close to the heart of the universe; he is in union with God. God actually exists in the universe in a realistic sense, independent of us, and our religious sentiments are directed toward Him. In some respects Alexander's view of God is pantheistic, since it regards God as in a sense comprising the whole existing universe; but Alexander insists that his view is theistic to the extent that it recognizes us to be finite individuals who have our independent consciousnesses, and that we are distinct from God even when in communion with Him in religious experience. God is immanent, in the sense that He is present everywhere in the universe, and He is transcendent in His forward reach to the attainment of Deity.¹²

We can and should participate in the effort of God to bring Deity into existence.¹³ What Deity will be depends in part upon our efforts. Like James, Alexander believes that we should be fellow workers with God. We cannot hold Deity responsible for the evil now in the world, because Deity does not yet exist. We are to some extent responsible for what Deity will ultimately become, and to an equal degree for what good and evil there will be in the world in the future. God, to be sure, includes all that now is, evil as well as good. Evil, however, is good in the making; or, at least, it can be turned into good. Perhaps Alexander means that God is not responsible for evil any more than we are responsible for our own bodies; just as by exercise and diet we can make our bodies better, so God and we in unison can make the world better, and effect the emergence of Deity.

Alexander's philosophy of religion is suggestive and has elements of merit, although some of its features seem almost fantastic, and certainly require modification. Like the majority of recent philosophers, he wishes to retain from the religion of the past at least something of the conception of God, and to recognize the genuineness of human religious experience.¹⁴

The other most eminent British emergent evolutionist has been C. Lloyd Morgan, to whom Alexander was probably originally indebted for the conception.¹⁵ Lloyd Morgan's works are less difficult than *Space, Time and Deity*; they abound in biological and psychological illustrations; their interpretation of religion is more along conventional lines. *Emergent Evolution* is perhaps the best of them. Among American emergent evolutionists, J. E. Boodin (*Cosmic Evolution, God, etc.*) has written most voluminously on this topic, especially in its theological bearings, while W. P. Montague (*Belief Unbound, and other studies*) and R. W. Sellars (*Evolutionary Naturalism, Physical Realism, etc.*) have put most stress upon its philosophical implications.

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Commentaries:

Rudolf Metz, *A Hundred Years of British Philosophy*, pp. 622-651.

Philippe Devaux, *Le Système d'Alexander.*

NOTES

CHAPTER IV

HOBBS

1. Leslie Stephen, *Hobbes*, p. 64.
2. Aubrey, *Brief Lives*, edited by Clark, Vol. I., pp. 348ff.
3. Aubrey, *op. cit.*, p. 323.
4. *Idem*, p. 387.
5. *Idem*, p. 332.
6. *Idem*, p. 335.
7. *Ibid.*
8. *Idem*, p. 340.
9. *Ibid.*
10. *Idem*, p. 350.
11. *Idem*, p. 349.
12. *Leviathan*, Part I, Chap. I.
13. T. H. Huxley, *Science and Culture and Other Essays*, pp. 245ff.
14. *Leviathan*, Part I, Chap. III.
15. *Ibid.*
16. *Idem*, Part I, Chap. VI.
17. *Idem*, Part I, Chap. XIII.
18. *Ibid.*
19. *Ibid.*
20. *Idem*, Chap. XXI.
21. The thirteen laws of nature are stated and expounded in the *Leviathan*, Chaps. XIII, XIV.

CHAPTER V

DESCARTES

1. *The Philosophical Works of Descartes*, translated by Haldane and Ross, Vol. I., pp. 91, 92.
2. Descartes, *Principles*, Part I, § XLV.
3. *Idem*, Part I, §§ XXXII–XXXV.
4. *Philosophical Works of Descartes*, Haldane and Ross, Vol. II, p. 38.
5. *Idem*, Vol. I, p. 165.

6. Paraphrased from the *Principles*, Part I, §§ XX, XXI. Also given in the third *Meditation*.

7. Paraphrased from the second *Meditation*. Haldane and Ross, pp. 154-156.

8. Leibniz in the following generation came closer to present thought when, in criticism of Descartes, he showed that it is force, and not motion, that always remains constant.

9. Cf. S. V. Keeling, *Descartes*, p. 144, where citations are given.

CHAPTER VI

SPINOZA

1. *Improvement of the Understanding*, translated by Elwes in *Spinoza's Chief Works*, Vol. II, pp. 4ff.

2. In the *Improvement of the Understanding*, and also in the *Ethics*, Part II, Proposition XXXIX, Note II, and Proposition XVIII. What is here called opinion is subdivided into two different types of knowledge, making four in all.

3. *Ethics*, Part II, Proposition XLIII. Note (Elwes, Vol. II, p. 115).

4. *Ethics*, Part I, Proposition XI contains the first three proofs; the fourth is given in the first paragraph of the Note to this Proposition.

5. H. A. Wolfson, *The Philosophy of Spinoza*. This commentary, which indicates the probable sources of Spinoza's thought, is invaluable.

6. *Ethics*, Part IV, Proposition XLVI.

7. *Theological Political Treatise*, Chapter XVI; quoted from Elwes, Vol. I, p. 207.

CHAPTER VII

LEIBNIZ

1. The spelling "Leibnitz" is erroneous. Until 1669 he spelled his name Leibnüz (in Latin Leibnüzius or Leibnizius), and thereafter Leibniz (Latin, Leibnitius). Cf. Ueberweg, *Grundriss der Philosophie*, Dritter Teil, Zwölfte Ausgabe, S. 307.

2. Leibniz was one of the few visitors whom Spinoza permitted to read the manuscript of his *Ethics*, which was not published until after Spinoza's death. For a time Leibniz was apparently impressed by Spinoza, but his mature system is a de-

velopment from Cartesianism in the opposite direction. In contrast to Spinoza, Leibniz affirms a plurality of individual substances or monads, instead of one single substance, the personal and creative God of theism instead of pantheism, a universe governed by the principle of sufficient reason instead of by rigorous mathematical necessity, and a larger amount of freedom and self-determination for men.

3. On the relative emphases of different considerations in the development of his thought, see L. J. Russell, "Some Problems in the Philosophy of Leibniz," in the *Proceedings of the Aristotelian Society* (1922-23), pp. 199-214.

4. Good, for Leibniz, is perfection in perception. Consciousness of any perception, whether in one's self or in an external object, is, or is attended by, pleasure. Cf. W. K. Wright, *The Ethical Significance of Feeling, Pleasure and Happiness in Modern Non-Hedonistic Systems*, pp. 23-26. Leibniz wrote little upon ethics, and exercised comparatively little influence upon the history of ethics.

5. Although in the *Protagaea* and elsewhere Leibniz seems to have entertained the thought of the transformation of biological species, and in other respects to have had a faint idea of biological and even of cosmic evolution, such thoughts conflict with his system as a whole, as Professor A. O. Lovejoy admits (*The Great Chain of Being*, pp. 255-262).

CHAPTER VIII

LOCKE

1. Alexander Pope, *Essay on Man*.
2. Cf. Frank Thilly, "Locke's Relation to Descartes." *Philosophical Review*, Vol. IX.
3. *Essay*, Book II, Chap. VIII, § 17.
4. *Essay*, Book II, Chap. VIII, § 20.
5. *Essay*, Book IV, Chap. IX, § 3.
6. *Essay*, Book IV, Chap. XI, § 19.
7. *Essay*, Book I, Chap. III, § 6.
8. The principal passages dealing with ethics in the *Essay* are as follows: Book I, Chap. III. Book II, Chap. XX, § 2 and XXVIII, §§ 4-16. Book III, Chap. XI, §§ 16-18. Book IV, Chap. III, §§ 18-20; Chap. IV, §§ 7-10; Chap. V, § 11; Chap. XII, §§ 8, 11. A concise summary will be found in Thilly's *History of Philosophy*, pp. 322-325. Locke states how moral instruction

should be given to a child in *Some Thoughts Concerning Education*.

9. *Essay*, Book II, Chap. XXI.
10. *Essay*, Book IV, Chap. XIX, § 14.
11. *Essay*, Book IV, Chap. XVIII, § 5.
12. *The Reasonableness of Christianity*, in *Works*, edition of 1823, Vol. VII, p. 152. Cf. *An Essay for the Understanding of St. Paul's Epistles*, in *Works*, Edition of 1823, Vol. VIII, pp. 3-23.
13. *Works*, edition of 1823, Vol. VI, p. 10.
14. *Works*, edition of 1823, Vol. VI, p. 45.
15. *Works*, edition of 1823, Vol. VI, p. 47.
16. *Works*, edition of 1823, Vol. VI, p. 414.
17. *Of Civil Government*, Book II, Chap. II, § 14 and *passim*.

CHAPTER IX

BERKELEY

1. 1685 is the date usually given for his birth, although Professor John Wild (*George Berkeley, A Study of His Life and Philosophy*, p. 3) gives it as 1684, and the inscription at Christ Church, Oxford, as 1679. The philosopher's name is pronounced in two syllables (as if spelled Bark'ly).

2. Benjamin Rand, *Berkeley's American Sojourn*.

3. The English lexicographer whose biography Boswell wrote; not to be confused with the American philosopher of the same name, who was an adherent to Berkeley's philosophy.

4. This is made quite clear in the *Three Dialogues Between Hylas and Philonous*; Berkeley's reply to this objection in the *Principles* is more ambiguous.

5. *Don Juan*, at the beginning of canto XI.

6. *Principles*, CXLVIII.

7. *Ibid.*, CXLI.

8. In the *Phaedo*, 78, it is argued that what is uncompounded must be unchanging and indissoluble.

9. Professor John Wild (*op. cit.*), however, believes that in the third of the *Dialogues Between Hylas and Philonous* Berkeley was already breaking with the empiricism of the *Principles* and moving in the direction of the view of reality in the *Siris*, a view which is more "concrete" in the Hegelian sense of the word.

10. The latest and most thorough study of the development of Berkeley's thought throughout his entire life is that by Professor Wild (*op. cit.*). A more concise account is given by G. A. Johnston, the *Development of Berkeley's Philosophy*.

11. The exposition of this and the preceding fallacy is based upon Professor R. B. Perry's *Present Philosophical Tendencies*, pp. 122-134.

12. The term "solipsism" is occasionally used by philosophers in other senses than that employed here.

13. That Berkeley's and other forms of idealism logically imply solipsism is maintained by Professor W. P. Montague, *Ways of Knowing*, Chap. X.

CHAPTER X

HUME

1. Perhaps this statement should be qualified a little. Some authorities think that the *Enquiry Concerning the Principles of Morals* is a more mature statement of his ethics. The *Dialogues*, written toward the close of his life, give his final conclusions regarding religion, so far as he arrived at any.

2. Hume, *Treatise*, Book I, Part IV, Section VI.

3. *Enquiry Concerning Human Understanding*, lecture XII, Part III.

4. *Treatise*, Book I, Part III, § XIV. Hume's awkwardness in this definition is due to his inconsistently endeavoring to remain faithful to his usual supposition that the same impression never recurs, but only others similar to it, while at the same time he is really for the moment abandoning this supposition, and admitting that we do experience more than one instance of the same phenomenon.

5. *Treatise*, Book I, Part I, Section II.

6. *Treatise*, Book I, Part IV, Section VII.

7. *Enquiry Concerning Human Understanding*, Section V, Part II, last paragraph; Section IX, last paragraph; Section XII, Part I (pp. 151ff. in Selby-Bigge). Cf. *Treatise*, Book I, Part IV, Section VII.

8. John Hill Burton, *Life and Correspondence of David Hume*, Vol. I, pp. 293f. Cf. T. H. Huxley, *Hume*, pp. 33ff.

9. *Treatise*, Book II, Part III, Section III.

10. See below, Chapter XI, Section I.

11. Cf. H. Bonar, *Moral Sense*, pp. 14 and *passim*.
12. For Hume's influence on Bentham and other Utilitarians, see Elie Halévy, *The Growth of Philosophic Radicalism*.

CHAPTER XI

OTHER PHILOSOPHERS OF THE ENLIGHTENMENT

1. Shaftesbury, *Inquiry Concerning Virtue and Merit*, republished in *Characteristics of Men, Manners, Opinions and Times*. A selection is given by L. Selby-Bigge, *British Moralists*.

2. W. R. Scott, *Francis Hutcheson* is an excellent commentary. A selection is given by Selby-Bigge, *op. cit.*, from the *Inquiry*.

3. Butler's *Sermons*, of which XI, containing the "cool hour" passage quoted, is perhaps the most interesting. Sermons I and II, with selections from III, are given, with a useful analysis, by G. H. Clark and T. V. Smith, *Readings in Ethics*. Cf. also Selby-Bigge, *op. cit.* An excellent exposition of Butler's ethics is given by C. D. Broad, *Five Types of Ethical Theory*.

4. Cf. the "laws of imitation" in the writings of Gabriel Tarde and his school; the "consciousness of kind" of the late Professor F. H. Giddings (*Principles of Sociology*, etc.). Professor F. C. Sharp in a noteworthy presidential address to the Western Philosophical Association in 1908 (published the same year in the *Philosophical Review*) finds the objective basis for ethical judgments in an adaptation of Smith's doctrines of sympathy and conscience.

5. For one important side of Pope's thought, cf. A. O. Lovejoy, *The Great Chain of Being*, passages listed in Index, under "Pope, Alexander."

6. Short popular accounts of English Deism will be found in the *Encyclopaedia Britannica* (fourteenth edition) by F. R. Tennant; Hastings' *Encyclopaedia of Religion and Ethics* by G. C. Joyce, Williston Walker's *History of the Christian Church*, and J. H. Randall's *Making of the Modern Mind*, Chap. XII (the last named also touches on French Deism and Holbach). For an extended exposition and criticism, cf. Leslie Stephen, *History of English Thought in the Eighteenth Century*. The setting of Deism in the history of philosophy is made clear by W. Windelband, *History of Philosophy*, § 35.

7. Locke, *Essay*, Book IV, Chap. III, Section 6.

8. Short and not very adequate statements of the views of Hartley and Priestley will be found in J. G. Hibben's *Philosophy of the Enlightenment*, Weber's *History of Philosophy*, Windelband's *History of Philosophy*, and Leslie Stephen's *English Thought in the Eighteenth Century*. It is better, if possible, to consult the works of Hartley and Priestley themselves, which are interestingly written.

9. An excellent popular account of Voltaire by Will Durant, *Story of Philosophy*. For good short discussions of Voltaire and other men of the French Enlightenment, cf. H. Höffding, *History of Modern Philosophy* and L. Lévy-Bruhl, *History of Modern Philosophy in France*. Lives of Voltaire, Diderot, Condorcet, and Rousseau, with accounts of their philosophical views, by John Morley. Cf. also Frederica Macdonald, *Studies in the France of Voltaire and Rousseau*. *Life of Voltaire* by S. G. Tallentyre (Evelyn Beatrice Hall).

10. L. Lévy-Bruhl, *History of Modern Philosophy in France* (English Translation, p. 235), Open Court Publishing Company, Chicago.

11. John Morley, *Diderot and the Encyclopaedists*, Vol. II, Chap. XIV. *The System of Nature* was translated into English by H. D. Robinson; an edition was published in Boston, U. S. A., in 1853.

12. H. Höffding, *Jean Jacques Rousseau and His Philosophy*; L. Lévy-Bruhl, *op. cit.*, numerous translations of the *Social Contract* and *Émile*. For Rousseau's place in the history of education, see Paul Monroe, *Text Book in the History of Education*, Chap. X, and F. P. Graves, *History of Education*. For analysis and constructive criticism of Rousseau's political philosophy, T. H. Green, *Lectures on the Principles of Political Obligation*, W. A. Dunning, *History of Political Theories*. Lives of Rousseau by John Morley, C. E. Vulliamy, and Frederica Macdonald.

13. J. G. Hibben, *Philosophy of the Enlightenment*, Chap. VIII. H. Höffding, *History of Modern Philosophy*. For fuller accounts of Wolff, see Ueberweg and other standard German works on *Geschichte der neueren Philosophie*.

14. Noah Porter in the American translation of Ueberweg's *History of Philosophy*, pp. 392-421, gives an extended account of the history of American philosophy in this period. James McCosh, *The Scottish Philosophy in Its National Development*. A. C. Fraser, *Thomas Reid*. Thomas Reid, *The Intellectual Powers of Man*. *Collected Works of Dugald Stewart*, edited by

Hamilton. Thomas Brown, *Lectures on the Philosophy of the Human Mind*.

15. I. Woodbridge Riley, *American Philosophy: The Early Schools*, pp. 127-151.

16. Harvey Gates Townsend, *Philosophical Ideas in the United States*, pp. 61ff. Quoted with the permission of the publishers, The American Book Company, New York.

17. I. Woodbridge Riley, *American Philosophy: The Early Schools* (with extensive quotations and references to the sources). *American Thought From Puritanism to Pragmatism and Beyond* (a more popular account). H. G. Townsend, *Philosophical Ideas in the United States* (with a selected bibliography). A. L. Jones, *Early American Philosophers* (chiefly on Johnson and Edwards). Noah Porter, "On English and American Philosophy" in the English translation of F. Ueberweg, *History of Philosophy*, Vol. II.

CHAPTER XII

KANT

1. Kant, *Critique of Pure Reason*, B (second edition), pp xvi, xvii. Norman Kemp Smith, *A Commentary to Kant's Critique of Pure Reason*, pp. 22-25. H. J. Paton, *Kant's Metaphysic of Experience*, Vol. I, pp. 75f.

2. Kant, *Critique of Pure Reason*, "Postulates of Empirical Thought in General." Paton, *op. cit.*, Vol. II, pp. 339, 342, 360, cf. *Critique of Pure Reason*, Book II, Chap XI, Section 9, III. (Max Mueller trans. pp. 432-451.)

3. *Critique of Practical Reason*, translation by Abbott in *Kant's Theory of Ethics*, pp. 219ff.

4. In *Sartor Resartus*.

5. F. Paulsen, *Immanuel Kant*, Eng. trans., p. 317.

6. Quoted from Abbott, *op. cit.*, p. 260.

CHAPTER XIII

FICHTE AND THE ROMANTIC MOVEMENT

1. Ebert, in concluding his speech at the opening of the National Assembly at Weimar in 1919, said: "In this way we will set to work, our great aim before us; to maintain the right of the German nation, to lay the foundation in Germany for a strong democracy, and to bring it to achievement with the true

social spirit and in the socialistic way. Thus shall we realize that which Fichte has given to the German nation as its task. We want to establish a State of justice and truthfulness, founded on the equality of all humanity." *London Times*, February 8, 1919, cited by Jones and Turnbull in the introduction to their translation of the *Addresses to the German Nation*, p. xxii.

2. G. H. Mead, *Movements of Thought in the Nineteenth Century*, Chaps. III-VI.

3. A. O. Lovejoy, *The Great Chain of Being*, pp. 317-326.

4. The separation of Schelling's development into five periods follows Schwegler's *History of Philosophy*, which although an old authority is remarkably clear and concise. The various authorities disagree considerably upon the exact number of periods and when each begins. (Cf. Ueberweg's *Geschichte der Philosophie*, XIX Jahrhundert, revised by Oesterreich, Berlin, 1923, pp. 40ff.) As every one of Schelling's principal books differs somewhat from all the others, and the dominant view in each is often foreshadowed in earlier writings, any division into periods is more or less arbitrary.

CHAPTER XIV

HEGEL

1. E. Caird, *Hegel*, p. 89.

2. Cf. Royce, *Spirit of Modern Philosophy*, pp. 196-200.

3. Cf., for instance, W. T. Stace, *Philosophy of Hegel*, Chaps. I and II.

4. An extensive and in many ways illuminating analysis of the personality of Hegel is furnished by Hermann Glockner, *Hegel*, Band I Drittes Kapitel—Vol. XXI in Hegel's *Sämtliche Werke*, Jubiläumsausgabe. Stuttgart, 1929.

5. In this and the following two paragraphs I am largely following the interpretation of Hegel given by Josiah Royce in his *Spirit of Modern Philosophy*. The justification for this interpretation is given by Royce, who cites various passages in the *Phenomenology*.

6. This table is an abridgment of the arrangement in the *Encyclopaedia*. The table in full is given by Stace, *op. cit.*

7. *The Logic of Hegel* translated from the *Encyclopaedia* by William Wallace, §§ 147-159.

8. Hegel delivered a set of lectures upon the proofs of the

existence of God, which are published in the English translation of the *Philosophy of Religion* by Speirs and Sanderson, Vol. III.

9. *Encyclopaedia*, § 249; cf. Stace, *op. cit.*, p. 313.

10. Hegel would therefore disagree with the sentimental criminologists of our own time who deny that the criminal is in any way responsible or blamable, and that he is merely a product of external circumstances, and who accordingly propose to "re-condition" or "rehabilitate" him. Such proposals, Hegel would say, insult the criminal by denying that he is a free moral agent; they look at him as if he were merely an animal or even a material object, to be remade according to the wishes of others.

11. Cf. the Introduction to the *Philosophy of Fine Art*, Chap. III.

12. While I am told that Professor Whitehead denies that he has ever made an extensive study of Hegel, his organic view of reality shows many unmistakable Hegelian features which he may have assimilated from his friends and colleagues during the period when British philosophical thought was predominantly Neo-Hegelian.

CHAPTER XV SCHOPENHAUER

For those who can take the time to do so, it will be best to read *The Four Fold Root of Sufficient Reason* and the first volume of *The World as Will and Idea*, and in connection with the latter, to read as much of the supplementary material in the second and third volumes as interests one. The fourth book of *The World as Will and Idea*, containing some of the most frequently quoted pessimistic passages, is easiest to follow. The first book is the most difficult. The occasional *Essays* (*Parerga und Paralipomena*, various translations), although entertaining, do not give an adequate idea of the real depth and significance of Schopenhauer.

1. *The World as Will and Idea*, trans. by Haldane & Kemp, Vol. I, § 1; Vol. II, pp. 163ff.

2. *Op. cit.*, Book I in Vol. II, "Criticisms of the Kantian Philosophy."

3. *Ibid.*, Vol. I, pp. 145-152; Vol. III, pp. 67-69. Cf. *Four Fold Root of the Sufficient Reason*, §§ 20, 41; *Basis of Morality*, Part II, Chap. VIII; *Preisschrift über die Freiheit des Willens*.

4. *The World as Will and Idea* (Haldane and Kemp), Vol. II. p. 164; Bk. II, § 22.

5. E.g., B. A. G. Fuller, *History of Philosophy*, Vol. II, pp. 477ff. Cf. *World as Will and Idea*, Bk. IV, § 68 (Haldane and Kemp, Vol. I, p. 491), where Schopenhauer seems to imply that if universal celibacy were to prevail the race would die out, and with its extinction the rest of the world would disappear, because without a subject there could be no object. But if this is what Schopenhauer means, why does not he emphasize this very important conclusion more often in Book IV and the chapters supplementary to it?

CHAPTER XVI

NIETZSCHE

1. *The Dawn of Day*, §§ 2, 9, 18-20, 28, 34, 38, 112.

2. *Op. cit.*, §§ 199, 201.

3. *Human, all too Human*, Vol. II, Part II, §§ 23, 24, 28. *Dawn of Day*, § 13. The works of this period are difficult to characterize accurately in a brief account. They deal with a great variety of topics, and the thought has not yet crystallized into the definite doctrines of the third period. A good short summary will be found in A. H. J. Knight's *Some Aspects of the Life and Work of Nietzsche*, pp. 31-39. A more technical philosophical analysis is given by Grace Neal Dolson, *The Philosophy of Friedrich Nietzsche* (Cornell Studies in Philosophy), pp. 34-62.

4. The beginner might well start his reading of Nietzsche with the first two essays of the *Genealogy of Morals*, which are direct, comparatively simple, and thoroughly characteristic.

5. Caesar Borgia was popular in Italy long after his death. He was a character after Nietzsche's own heart. He had genius, generalship, statesmanship, ruthless determination, personal charm and qualities of leadership, unhampered by conscientious scruples. He is supposed to be idealized by Machiavelli as *The Prince*. Cf. W. H. Woodward's biography, *Cesare Borgia*, pp. 375ff. (London, 1913).

6. Knight, *op. cit.*, pp. 52-57, 60-66, 182-185.

7. G. Simmel, *Schopenhauer und Nietzsche*, pp. 183-185. Knight, *op. cit.*, pp. 112-116.

8. Short expositions of most of the philosophers mentioned in this section will be found in the histories of philosophy by

H. Höffding, F. Thilly, and B. A. G. Fuller. There is no very satisfactory extended account in English. *Die deutsche Philosophie des XIX Jahrhunderts und der Gegenwart*, Ueberweg, neu-bearbeitet von T. K. Oesterreich, is useful. *Philosophie der Gegenwart in Selbstdarstellungen*, edited by R. Schmidt, Leipzig, 7 vols., 1922-1929, is valuable for philosophers living at the time the book was published.

CHAPTER XVII

COMTE

1. The beginner will find the short biography by F. J. Gould interesting. Of Comte's own writings available in English, the *General View of Positivism* and *Catechism of Positive Religion* are most readable. The condensed and paraphrased translation of the *Positive Philosophy* by Harriet Martineau is rather dry and not altogether accurate, although it was highly praised by Comte himself, and promptly retranslated into French for the benefit of readers who found the *Cours de philosophie positive* too lengthy and difficult. The essays by John Stuart Mill and Edward Caird are classical expositions and evaluations, from the respective standpoints of British empiricism and idealism.

2. L. Lévy-Bruhl, *History of Modern Philosophy in France* continues to be the best popular account in English of the French philosophers of the nineteenth century. Cf. also G. de Ruggiero, *Modern Philosophy*. For many years an article on the latest works in French philosophy has appeared annually in the *Philosophical Review*.

CHAPTER XVIII

JOHN STUART MILL

For the general reader, the Essays listed in the References at the end of the chapter and Mill's *Autobiography* are of most interest. The chief source for Mill's views on logic, ethology, and sociology is his *Logic*; on metaphysics, the *Examination of Sir William Hamilton's Philosophy*; on religion, the *Three Essays on Religion* and the *Autobiography*. Mill usually expresses himself with great clarity, and a commentary is hardly necessary. The chapter in Höffding's *History of Modern Philosophy* is an excellent short exposition, while Leslie Stephen's *The English*

Utilitarians (the whole of Vol. III) is more extended. One of the most famous critics of Mill's ethics was Thomas Hill Green (*Prolegomena to Ethics*). Another critic, both of his logic and ethics, was Francis Herbert Bradley (*Logic and Ethical Studies*). These critics are idealists. John Dewey (*Logic*) criticizes Mill incisively from the standpoints of his own "operationalism" (a form of pragmatism). For Mill's reaction to Comte, cf. his *August Comte and Positivism* and his correspondence with Comte (edited by Lévy-Bruhl).

1. *Logic*, Book VI, Chap. II.
2. *Logic*, Book VI, Chap. V.
3. Some steps have been taken in this direction by Alexander F. Shand (*Foundations of Character*) and William McDougall (*Social Psychology and The Group Mind*).
4. James MacKaye (1872-1935) has been perhaps the most original of American Utilitarians. In the *Economy of Happiness*, *Americanized Socialism*, the *Logic of Conduct*, and numerous other works, he gave the doctrine a new statement, favoring a moderate form of socialism.

CHAPTER XIX

HERBERT SPENCER

For the beginner, the following selections from *First Principles* and the *Principles of Ethics* are suggested. *First Principles*, Part I, entire; Part II, Chaps. I, II, XII-XVIII. *Principles of Ethics*, Part I (Data of Ethics), Chaps. I-IV, VII, VIII, X-XV; Part IV (Justice), Chaps. I-XIII, XXIV-XXIX. These might be followed by *Education*, *The Study of Sociology*, and some of the *Essays*.

1. See references to Mill in Spencer's *Autobiography* and in D. Duncan, *Life of Herbert Spencer*.
2. J. Rumney, *Herbert Spencer's Sociology*, pp. 208ff. and citations therein to Spencer's works.
3. For an evaluation of Spencer's place in sociology, cf. J. Rumney, *op. cit.*
4. Histories of moral evolution in the spirit of Spencer, but more up to date are L. T. Hobhouse, *Morals in Evolution*, and Edward Westermarck, *Origin and Development of Moral Ideas*. An older authority still worth reading is Alexander Sutherland, *Origin and Growth of the Moral Instinct*.

5. Cf. John Fiske, *Essays Historical and Literary*, Vol. II, p. 229, and footnote. John Spencer Clark, *John Fiske, Life and Letters*, pp. 262-265. Spencer's final attitude toward religion is stated in his *Autobiography*, Vol. II, pp. 544-549.

6. Cf. the chapters on "The Limits of State Duties" in the *Principles of Ethics*, Part IV (Justice), and some of the *Essays*.

CHAPTER XX

JOSIAH ROYCE

The beginner will find most of Royce's important conceptions popularly stated in the *Spirit of Modern Philosophy*, Lectures I, X-XIII. If he wishes to read further, he should take up the *World and the Individual*, in which he will probably find material of most interest to him in Vol. II.

1. The biographical data in this section are taken mostly from an article by one of Royce's pupils, Professor R. B. Perry, in the *Dictionary of American Biography*, Vol. XVI (N. Y. Scribners, 1935).

2. *Spirit of Modern Philosophy*, Lecture X.

3. *Ibid.*, p. 17.

4. This and the following paragraphs are paraphrases of arguments frequently employed by Royce. Cf. *Spirit of Modern Philosophy*, pp. 203-216 (an exposition of Hegel, but Royce's own view as well); pp. 341-380.

5. I am assuming that the "Beloved Community" of the *Problem of Christianity* is the *Absolute* of Royce's earlier works. In the Preface he tells us that the book is in essential harmony with the philosophical idealism of his earlier works (p. x) and that its thesis is to show that the being which the early Church believed itself to represent, the "Beloved Community" is the true source of the salvation of man (p. xxvi). In the introduction he seems to imply that the whole universe is both a community and a divine being (p. xxxvi).

6. *Spirit of Modern Philosophy*, Lecture X; *World and the Individual*, Vol. I, Lecture III.

7. *Spirit of Modern Philosophy*, Lecture XII. *World and the Individual*, see Index under "Appreciation" and "Description."

8. *World and the Individual*, Vol. II, p. 229.

9. *Spirit of Modern Philosophy*, p. 427.

10. *Spirit of Modern Philosophy*, pp. 428ff. *World and the Individual*, Vol. II, pp. 286-294, 327-331, 335-337.

11. *Spirit of Modern Philosophy*, Lecture XIII. *World and the Individual*, Vol. II, Lecture IX. *Problem of Christianity*, Volume I, Lecture VI, especially pp. 365ff.

12. *World and the Individual*, Vol. II, pp. 445-452.

CHAPTER XXI

WILLIAM JAMES

1. *The Letters of William James*, edited by his son, Henry James, Vol. I, p. 296.

2. "Spencer's Definition of Mind" in the *Journal of Speculative Philosophy*, Jan., 1878, republished in *Collected Essays and Reviews*. Cf. R. B. Perry, *Present Philosophical Tendencies*, p. 350.

3. The distinction between the "healthy minded" and "sick souls" in the *Varieties of Religious Experience* is another of James' suggestive contrasts in types of temperaments with philosophical significance.

4. In the *Popular Science Monthly*.

5. His only essay on ethical theory is "The Moral Philosopher and the Moral Life" in *The Will to Believe and Other Essays*. James was an individualist, and a firm believer in tolerance and personal liberty. He disliked imperialism, and opposed the Spanish-American War and the annexation by the United States of the Philippines. He advocated *laissez faire*. He liked the evolutionary approach in Spencer's *Data of Ethics*. He disapproved of war, but was not blind to the moral benefits of conscription and the military virtues, and he sought a peaceful substitute for them in "the Moral Equivalent of War," republished in *Memories and Studies*.

6. *Pragmatism*, p. 73.

7. The essay on "The Will to Believe," which James later said that he ought to have entitled "The Right to Believe," should be interpreted in the light of the Appendix to *Some Problems of Philosophy*.

8. Cf. *Psychology*, Chap. XXVI, or *Psychology, Briefer Course*, Chap. XXVI, and "The Dilemma of Determinism" in *The Will to Believe and Other Essays*.

9. Cf. the chapter on Bergson in *A Pluralistic Universe* and the chapters on "Novelty and Causation" in *Some Problems of*

Philosophy. The doctrine is briefly but well stated by Th. Flournoy, *The Philosophy of William James*, Chap. VII.

10. Cf. "Great Men and Their Environment" in *The Will to Believe and Other Essays*.

11. It is strange that a philosopher who in his youth studied art and tried to be a painter, and who writes in a charming if unconventional style, should have contributed practically nothing to aesthetics.

12. James' fullest treatment of pluralism is *A Pluralistic Universe*. There are frequent references to pluralism in *Some Problems of Philosophy*.

13. Cf. W. K. Wright, "The Genesis of the Categories" in the *Journal of Philosophy, Psychology and Scientific Methods*, 1913. The categories seem to me not so much tools deliberately invented as gradual growths, products of the collective mind like the words of a language and customs of a nation. But James seems to be right that the categories have had a history in human evolution.

14. "Final Impressions of a Psychical Researcher" in *Memories and Studies*.

15. James' ill health and preoccupation with other matters prevented him from developing radical empiricism into a comprehensive philosophical position, even in his own mind. This at least is my own reaction, on reading R. B. Perry, *The Thought and Character of William James*, especially Chapter LXXIV.

16. In this section I am in the main indebted to Professor R. B. Perry's plausible interpretation of James' thought in Perry's collection of James' essays entitled *Essays in Radical Empiricism*.

17. This is the doctrine of James' essay "Does Consciousness Exist?" republished in *Essays in Radical Empiricism*.

CHAPTER XXII

JOHN DEWEY

1. Cf. Dewey's Personal Statement in *Contemporary American Philosophy*, edited by G. P. Adams and W. P. Montague, N. Y., 1930.

2. Cf. *The Public and Its Problems*.

3. Cf. Preface to *Logic*.

4. *Contemporary American Philosophy*, Vol. II, pp. 22ff.

5. In the account here, I have endeavored to explain the purport of Chapter XXIV, "Philosophy of Education," in the light of the previous chapters of *Democracy and Education*.

6. This is an extreme simplification of Dewey's position, but I think correct so far as it goes. Cf. his *Logic*, pp. 343-347.

7. Dewey and Tufts, *Ethics*, 1932 ed., pp. 280-287.

8. This Part III was probably mostly written by Tufts in the 1932 edition, as was the case in the original edition, but it evidently expresses Dewey's own convictions as well.

9. George Burman Foster and Shailer Mathews have been considerably influenced by Dewey. Edward Scribner Ames and A. Eustace Haydon are Instrumentalists. The editors and contributors to *The Christian Century*, a popular religious weekly with wide circulation, have to some extent been influenced by Dewey.

10. *Human Nature and Conduct*, pp. 303-313. *The Quest for Certainty*, pp. 249f.

11. *Experience and Nature*, pp. 4ff., 231ff.

CHAPTER XXIII

HENRI BERGSON

1. Albert Tribaudet in the *Encyclopaedia Britannica*, fourteenth edition, says that he was born of Anglo-Jewish parents, while the *International Who's Who* (edition of 1938) makes him of Irish origin.

2. H. Höffding, *Modern Philosophers and Lectures on Bergson*, p. 249.

3. Mechanistic biologists claim that Bergson has exaggerated the similarity between the eye of man and that of the Pecten. However, anyone who reads the accounts of the two kinds of eyes and of their embryonic developments will be impressed by the facts reported. A better objection to Bergson on this point would be that he ought to find a larger number of such analogies, that he relies too much upon a single bit of evidence.

4. *Creative Evolution*, pp. 146ff, 171-174 (English translation).

5. Bergson's interpretation of the freedom of the will is explained by H. Wildon Carr, *Henri Bergson: The Philosophy of Change*, Chapter V. Bergson's more difficult statement is in *Time and Free Will*, the whole of Chapter III.

6. Pp. 236-271 in the English translation by Mitchell. It is a difficult passage. I hope that I have interpreted it correctly, although I admit, superficially.

CHAPTER XXIV

SAMUEL ALEXANDER

1. The beginner who wishes merely to catch something of Alexander's general attitude will enjoy *Beauty and Other Forms of Value*. Those who wish to tackle his philosophy seriously might begin by reading in *Space, Time and Deity*: the Introduction; Book I, Chap. I; Book II, Chap. I; Book III, Chaps. I, II, IX, X; Book IV, Chaps. I-III; then read the entire two volumes through in regular order. The thing *not* to do is to read part of the first volume and then stop; those who do that are likely to get an erroneous impression. The account by Metz listed in the References to this chapter is helpful, and for those who read French, the monograph by Devaux.

2. Short accounts of the history of the new realistic movement have been written by R. B. Perry (§§ 84 and 85 in Weber and Perry's *History of Philosophy*, revised edition of 1925) and by W. P. Montague in the British journal entitled *Philosophy*, April, 1937. More extended and critical discussions by Rudolf Metz, *A Hundred Years of British Philosophy* and A. K. Rogers, *English and American Philosophy Since 1800*.

3. The epistemological side of new realism is attractively presented by W. P. Montague, *Ways of Knowing*, and that of critical new realism by J. B. Pratt, *Personal Realism*. Each of the other critical new realists has contributed one or more volumes in which he treats of the subject in connection with other aspects of his own philosophical position.

4. *Space, Time and Deity*, Vol. I., pp. 43ff. and *passim*.

5. *Ibid.*, Vol. I, p. 48.

6. *Ibid.*, Vol. I, pp. 58ff.

7. *Ibid.*, Vol. II, pp. 55ff., 158ff.

8. With the exception of the first two sentences, this entire paragraph is interpretative, not expository. I am unable to cite passages in which Alexander commits himself conclusively on these points.

9. It has been possible here only to touch upon a few aspects of Alexander's treatment of aesthetics, and in no way to do

justice to it. The interested reader should consult *Beauty and Other Forms of Value*.

10. See above, page 106.

11. Alexander's discussion of Freedom is in Book III, Chap. X of *Space, Time and Deity*.

12. *Space, Time and Deity*, Vol. II, pp. 388-396 and *passim*.

13. *Ibid.*, Vol. II, pp. 399, 427.

14. Cf. W. K. Wright, "God and Emergent Evolution" in *Religious Realism*, edited by D. C. Macintosh.

15. *Space, Time and Deity*, Vol. II, p. 14.

GLOSSARY

Modern philosophers differ considerably in their use of terms. In this Glossary some of the more important terms are explained in a popular way, to indicate how they have been employed by the philosophers discussed in this book. When a term has been elucidated in the text, it has sometimes been deemed sufficient here to give page references.

Absolute, the: that which is complete in itself, and the ultimate ground of everything. This is the primal substance, or God, for Spinoza (pp. 98ff.); a primary and all inclusive Spirit (Ego, Self) for Fichte (304f.), Schelling (311ff.), Hegel (318ff., 327ff.) and Royce (489ff.); it is Unknown and Unknowable according to Spencer (457ff.).

Absolute Idealism: all reality is included within one complete system, known by an all comprehensive Mind, called the Absolute. See pp. 318, 323f. (Hegel) and 485, 489 (Royce).

Abstract: (1) usually, some essence or quality divorced from the objects that possess it and considered in isolation, e.g., redness, truth, beauty, etc., as opposed to **Concrete**. (2) Hegel and others mean by abstract anything taken in isolation from other things with which it is related; see pp. 322f.

Aesthetics: (1) usually, any philosophical inquiry regarding the beautiful in nature and art. (2) occasionally, as in Kant's *Critique of Pure Reason*, the study of perception.

Agnosticism: denial of the possibility of knowledge on some important subject. Religious Agnosticism denies that the existence of God can either be proved or disproved; see p. 460 (Spencer). Scientific Agnosticism denies that science affords knowledge of ultimate reality; see pp. 487ff. (Royce).

Altruism: in ethics, each person ought to be concerned with the good of others; in opposition to **Egoism**.

Analytic Judgment, as conceived by Kant and others: a judgment in which the predicate merely unfolds what is implied in

the subject without adding new knowledge, as contrasted with a **Synthetic Judgement**. See pp. 261f.

Anthropomorphism: attribution of human characteristics to God or ultimate reality, a term usually employed in disparagement.

Antimony: as used by Kant, an argument based on a false assumption, through which each of two contradictory propositions seems to be proved by the refutation of the other. See pp. 276ff.

Antithesis: used by Fichte, Hegel, and others to indicate some phase of thought or experience that appears to stand in sharp contrast to some other called the **Thesis**. The two are then reconciled in some more inclusive setting called the **Synthesis**. See pp. 302f., 327f.

A Posteriori in Kant: what is known merely as a result of limited experience or observation, and so cannot be affirmed to apply universally and necessarily to all possible experience; contrasted with **A Priori**. See p. 262.

A Priori in Kant: what is known to apply universally and necessarily to all possible experience; contrasted with **A Posteriori**. See pp. 261ff., 283.

Association of Ideas (or "mental discourse"): see pp. 60f., 200f.

Atheism: the unqualified assertion that God does not exist.

Behaviorism: position of a school of contemporary American psychologists who ignore introspection and consciousness, and are disposed to explain all human activities exclusively as mechanical reactions to sensory stimuli.

Categorical Imperative in Kant: an unqualified command morally obligatory upon all men at all times, whether they obey it or not. See pp. 282ff.

Categories: the most general and universal forms in which man thinks; they are variously regarded as the forms of the world itself (Aristotle, Alexander, pp. 583ff.); as the innate forms according to which the human understanding is constructed (Kant, pp. 269ff.), as the universal forms in which the

Absolute Mind thinks (Hegel, pp. 328ff); as useful means of thinking invented by our human ancestors (James, pp. 517f).

Concrete: (1) usually refers to whole particular objects as they are directly perceived, like a red apple or a beautiful sunset in opposition to abstract qualities like redness and beauty in general which apply to many objects but can never be experienced in isolation. (2) For Hegel, however, anything taken in relation to other things is concrete, while considered in isolation it is abstract. See pp. 322ff.

Contradiction law of: two contradictory judgments like All A is B and No A is B cannot both be true in the same sense. See p. 127.

Cosmological Argument (or "Proof") for the existence of God: a line of reasoning to establish God's existence based on cosmology: *e.g.*, on the ground that all events lead back to a single First Cause (God), or that all contingent events imply an absolutely necessary Being (God). Criticized by Kant, p. 280.

Darwinism: the theory of biological evolution which affirms that the different plant and animal species owe their origin to a process of natural selection by which chance variations appearing in some offspring enable the latter to survive their competitors in the struggle for existence, with the result that the favorable variations are transmitted to succeeding generations. Opposed to **Lamarckism** in denying the inheritance of acquired characters. This doctrine was less unqualifiedly affirmed by Darwin himself than by some of his followers. See pp. 468f. (Spencer) and 563 (Bergson).

Deduction: the logical process by which further inferences are drawn from propositions already accepted as true, *e.g.*, syllogisms, mathematical demonstrations, etc.

Deism: a view, often held in the eighteenth century, affirming the existence of God, but denying revelations, miracles, and other details in traditional Christianity and Judaism. See pp. 222ff., 229, 239f., 247f.

Determinism: (1) **Mechanical**,—all events, including human actions, are caused by antecedent events in a manner similar to purely physical processes described in mechanics; adherents to this view usually affirm human moral responsibility, but find it

difficult to explain. (2) **Self or Teleological Determinism**,—normally a person's actions are caused by his self or character, impulses, habits, purposes, and not by circumstances external to him; consequently his will is free and he is morally responsible. Both forms of **Determinism** oppose **Indeterminism**.

Dialectic: a term applied to many different professedly logical methods of developing philosophical thought. The term is used disparagingly by Kant (pp. 274ff.) and approvingly by Hegel (pp. 318, 327).

Dualism: (1) **Epistemological**, an idea is numerically different from the object to which it refers, *e.g.*, my idea of a particular table is not the table itself (p. 191). (2) **Metaphysical Dualism**, the mind and body are separate substances or processes, usually thought of as in *interaction*. See pp. 82ff. (Descartes) and p. 562 (Bergson).

Egoism: in ethics, each person ought to look out primarily for his own interests, opposed to **Altruism**. See pp. 476f. (Spencer).

Empirical: drawn from experience, especially sense perception, as opposed to **Rational**.

Empiricists: See p. 40 (Bacon). Other empiricists were Locke, Berkeley, Hume, Comte, J. S. Mill.

Epiphenomenalism: See p. 59.

Epistemology: the science of knowledge. A typical problem is, How can we through mental states know objects that are not mental at all?

Evolution, Emergent: in the course of evolution new levels are reached which consist of the same material as previous levels, but have unique qualities and properties. See pp. 584ff. (Alexander).

Finalism: a view opposed by Bergson, maintaining that evolution proceeds toward a future goal in accordance with a fixed plan (pp. 571f).

Free Will: (1) nearly all philosophers believe in free will to the extent that men are morally responsible for their actions. Such freedom is explained differently by **Determinism** and **In-**

determinism. (2) Free will however is occasionally used as a synonym with Indeterminism.

Hedonism: (1) *psychological*, all human desire is for pleasure. (2) *ethical*, either (a) affirms that all desire *ought* to be for one's own pleasure (*egoistic hedonism*, pp. 62, 65 (Hobbes), or (b) affirms that all desire *ought* to be for producing the greatest amount of pleasure among all sentient beings (*universalistic Hedonism* or Utilitarianism) pp. 446f. (J. S. Mill) and 473ff. (Spencer).

Hypothesis: a supposition tentatively accepted at the outset of a scientific investigation with the expectation that it will either be confirmed or refuted in the course of the investigation.

Idea: (1) The most common usage is that of Locke to designate any content of consciousness (pp. 146ff.). (2) Hume and some others restrict ideas to objects of memory and imagination, excluding sense impressions (p. 199). (3) Many other usages, e.g., Kant, pp. 275ff., Hegel, pp. 327ff., Schopenhauer, p. 362.

Idealism: any philosophy which affirms that reality is primarily spiritual in its constitution. Widely different types of idealism are represented by Leibniz (118ff.), Berkeley (178ff.), Kant (254, 268, 273f.), Fichte (301, 305), Hegel (318ff.), Schopenhauer (359ff.) and Royce (491ff.). See **Absolute Idealism** and **Personal Idealism**.

Identity, law or principle of: this affirms an identity between the subject and predicate in a judgment such as A is A. See pp. 127, 302.

Immanent: abiding within, as opposed to transcendent. God thought of as immanent is present everywhere, in all things.

Indeterminism: (1) in psychology and ethics, human volition is not wholly the outcome of internal and external causes, but in part at the moment of decision it is an absolutely free choice, as opposed to **Determinism**. See pp. 514f. (2) in metaphysics, a synonym of tychism, the universe is not wholly governed by causal laws, but an element of chance enters at times. See p. 515.

Induction: a logical method by which general conclusions are drawn from the comparison of particular instances of a phenomenon. See pp. 47ff. (Bacon) and 436-441 (J. S. Mill).

Innate Ideas: see pp. 73ff. (Descartes) and 143ff. (Locke).

Instrumentalism or Operationalism: Dewey's version of pragmatism, which affirms that the principles of logic and ethics are successful human inventions for the guidance of conduct. See pp. 540-546.

Intuition: the process by which some truths are known to be self evident and do not require proof. See pp. 73, 157f., 243, 561, 576.

Lamarckism: the evolutionary theory of Lamarck, which affirms (in opposition to Darwinism) that acquired characters are inherited, and that in animals variations producing new species are sometimes effects of efforts made by the organisms themselves. See pp. 468f., 563.

Materialism: all processes in the world, including the thoughts and activities of men, either actually consist exclusively of matter or energy or at least are completely dependent upon them. Opposed to **Idealism**, **Positivism**, etc. See pp. 57ff. (Hobbes) 233f. (Holbach).

Mechanism: phenomena are explainable only in terms of antecedent conditions devoid of purpose as in mechanics; usually contrasted with **Teleology**.

Meliorism: in opposition to *optimism*, meliorism denies that the world is perfect, and to *pessimism* that it is hopelessly bad, and instead affirms that the world is capable of improvement which men can help to bring about. Held by James and others. See p. 515.

Mentalism: an extreme form of idealism held by Berkeley and others, which affirms that only minds and ideas exist, and that there is no matter. See pp. 178ff.

Metaphysics: (1) the study of the ultimate nature of all reality, in contrast with logic, ethics, and the natural and social sciences, which deal with more restricted fields of inquiry. (2) Sometimes a term of disparagement applied by positivists and others to investigations which cannot be conducted by experimental methods.

Monads: the ultimate units of which the universe consists, according to Bruno (p. 33) and Leibniz (p. 120ff.).

Monism: (1) in general, the affirmation that all members of a system under consideration are subject to one single principle. Pantheism and materialism are monist views of the universe, in opposition to pluralism and dualism. (2) in epistemology. See p. 191.

Mysticism: it is possible through visions, revelations, or in some other superrational manner, to know God or ultimate reality.

Naturalism: (a slightly broader term than **Materialism**) includes philosophies affirming that all events, including the activities and aspirations of man, are of the same character and explainable in the same ways as processes going on in nature apart from man. Opposed to idealistic and teleological views of every description.

Nominalism: concepts and universals are merely words, names: only concrete individual objects are real. See pp. 18, 177.

Ontological Argument (or "Proof") for the existence of God: Descartes' version (p. 78); Spinoza's (p. 98); Leibniz' (p. 129); attacked by Kant (pp. 279f.); revived by Hegel (p. 336).

Operationalism: See **Instrumentalism**.

Optimism: all is good, and everything is working for the best; this is "the best of possible worlds." See pp. 131ff. (Leibniz).

Panpsychism: everything in the universe, including inorganic matter, has a mind, however undeveloped. See pp. 103-106, 125f., 497ff.

Pantheism: all is God and God is all; the universe in its entirety is God. Opposed to **Atheism**, **Theism**, **Agnosticism**, etc. Applied to Spinoza (p. 102), and Hegel (pp. 325f.). Royce was a pantheist as the term is usually defined, although he referred to himself as a theist (pp. 489ff.).

Parallelism, psychophysical: mind and matter are entirely distinct and separate, yet every phase of each has a counterpart in the other. See pp. 104ff.

Personal Idealism or **Personalism**. See pp. 189, 485.

Pessimism: all reality is fundamentally evil. See pp. 363ff. (Schopenhauer).

Pluralism: Many members of a system are distinct from one another and irreducible to a single principle, as opposed to **Monism**. See pp. 120, 516f.

Positivism (or **Positive Philosophy**): (1) as held by Comte, J. S. Mill and others, affirms that all possible knowledge is confined to phenomena manifest to the senses and the formulation of the laws governing the recurrence of such phenomena. See pp. 411ff.; 416f.; 441f. (2) Comte's religion, pp. 421ff.

Pragmatism: (1) as a logical method, finds the *test* of truth in the consequences subsequent to action. See pp. 511ff. (2) As a theory of the *nature* of truth, pragmatism maintains that a truth is merely the normal functioning of ideas in experience, and that truths frequently change. See pp. 519ff.

Primary Qualities: those qualities held by Locke and others to be essential to a physical object. See pp. 59, 80, 147ff, 179f, 194, 586.

Rational: knowledge gained through reasoning, as opposed to **Empirical** and intuitive.

Rationalism: the doctrine that some knowledge is known by the reason with more certainty than the observations of the senses alone could afford. See p. 40. Descartes, Spinoza, and Leibniz are classified as rationalists, and most other modern philosophers show some rationalistic tendencies.

Realism: (1) in the middle ages, universals or concepts have their being independent of particular instances, as opposed to **Nominalism**. See page 18. (2) in modern philosophy, realities of some description exist, or conceivably may exist, without being known by any mind (as opposed to **Mentalism**); yet all realities can become known by minds (as opposed to **Agnosticism**, **Positivism**, and **Skepticism**). See pp. 190-194, 527f., 579-582.

Reason, Law of Sufficient: Leibniz' interpretation, p. 128. Schopenhauer's interpretation, pp. 365-367.

Reductionism: the attempt to reduce the laws and phenomena of one science to those of another alleged to be more general, e.g., the reduction of biology to chemistry. See pp. 415f., 478, 585.

Relations, Externality of: See p. 153.

Relations, Internality of: the "organic theory of truth and reality," see p. 319f.

Scholasticism: the dominant philosophy of the middle ages, subordinated to theology. See pp. 2, 6, 15-21.

Secondary Qualities: qualities like color, odor, sound, etc., which are known only by one sense, and thought by Locke and others to be effects produced in human minds by external objects, but to be unlike these objects as they exist independent of minds. See pp. 59, 148f., 179f., 194, 587.

Self-Realizationism: ethical doctrine that the highest good is the fullest development of one's personality in coöperation with other persons.

Skepticism: *doubt* as to the possibility of knowledge of ultimate reality in some important field such as religion, science, metaphysics. See pp. 208ff. (Hume.) Agnosticism *positively denies* the possibility of such knowledge.

Solipsist: a person who claims that only he himself exists really; all other persons and all things are merely ideas in his own mind. See pp. 192f., 369f., 601 (Chap. IX, note 12).

Soul or "spirit": for Descartes, Leibniz, and Berkeley, a spiritual substance independent of the body, indestructible and immortal. See pp. 75f., 122ff., 181f. Attacked by Hume, pp. 202f., and Kant, pp. 273f.

Subsistence: some twentieth century philosophers agree with Meinong (p. 402) that universals, logical formulae, numbers and what Leibniz called "eternal truths" (p. 127) *subsist*, in contrast with concrete objects in space and time which *exist* as matters of fact (p. 195).

Substance: most often, the enduring stuff of which changing things are composed. However, almost every modern philosopher has had a different conception of substance; see Index.

Syllogism: a form of logical argument consisting of three propositions, *i.e.*, two premises and a conclusion; *e.g.*, All men are mortal, Socrates is a man, therefore Socrates is mortal.

Synthesis: a combination of partial insights (thesis, antithesis) into a more inclusive statement. See p. 303 (Fichte) and pp. 324f., 327f. (Hegel).

Synthetic Judgment: according to Kant, a judgment in which the predicate adds new knowledge to that already implied in the subject, as opposed to an **Analytic Judgment**. See pp. 261f.

Teleology: (1) usually, any view affirming that purposiveness is operative in the field under discussion, as opposed to Mechanism. (2) employed by Bergson, however, as synonymous with **Finalism**.

Theism: God exists distinct from the world, although He is present in it. He reveals Himself to mankind. Men can come into contact with Him in prayer. He is usually thought to have created the world. In general, the traditional Christian and Jewish conception of God, in contrast to **Deism**, **Pantheism**, **Atheism**, **Agnosticism**, etc.

Transcendent, Transcendental: as used by Kant, p. 263.

Tychism: see p. 515.

Universals: general terms or concepts like 'man,' 'animal,' 'redness,' 'truth,' 'beauty.' Medieval realists and Plato thought that universals exist independent of particular instances of them in space and time; nominalists claimed that only particular things are real and that universals are merely names; some modern realists say that universals *subsist* eternally, while particular things *exist* at specific points in space and instants in time.

Vitalism: in living organisms a purposive principle is operative in addition to mechanical factors. Bergson calls this principle "the vital impulse," pp. 562ff.

Voluntarism: any philosophy that regards will as the primary reality. Schopenhauer's version, pp. 361ff., 369ff. Nietzsche's version, pp. 388ff., 392ff. There are voluntaristic tendencies in many other modern philosophers, e.g., Leibniz, Fichte, James, Bergson, Alexander.

INDEX

- Absolute, Absolute Idealism.** See Glossary.
Abstract ideas. See Universals.
Adams, John, 247.
Aesop, 102.
Aesthetics, 289ff., 310f., 345ff., 373ff., 387f., 550ff., 591f.
Agassiz, L., 507.
Agnosticism, 460, 487.
Albee, E. A., 453, 487.
Alexander, Samuel, 351, 574-595.
 Life, 578f.; new realism, 579ff.; space-time, 582f.; categories, 583f.; emergent evolution, 584ff.; values, 589ff.; truth, 589; good, 590; beauty, 591f.; freedom, 592f.; religion, 593; God and Deity, 593f.
Allen, Ethan, 248.
Altruism, 421, 477.
Ames, E. S., 613.
Antinomies, 276ff.
Apperception, transcendental unity of, 274.
Aquinas, St. Thomas, 15f.
Aristotle, 15, 16, 31, 545.
Arnauld, 87.
Art, philosophy of. See Aesthetics.
Ashley, Lord Antony. See Shaftesbury, Earl of.
Association of Ideas, 60f., 153, 200f.
Atlantis, the New, 42.
Aubrey, J., 52, 68.
Avenarius, R., 402.

Bacon, Francis, 9, 39-51. **Personality,** 40f; advancement of learning, 42f.; idols, 43-46; induction, 47-49; a realist, 50.
Bacon, Roger, 6.
Bain, A., 453.
Bayet, A., 428.
Bayle, 87.
Bekker, 206ff.
Belief, 206ff.
Bellarmino, 28.
Belot, G., 428.

Bentham, J., 431f.
Bergson, H., 102, 427, 515, 524, 560-577. **Introductory,** 560ff.; *Time and Free Will*, 562, 570; *Matter and Memory*, 562, 573; vital impulse, 562ff.; instinct and intelligence, 565ff.; Zeno's paradoxes, 568; concepts, 569; free will, 570; life and matter, 570ff.; mechanism and teleology, 571ff.; morality and religion, 575ff.
Berkeley, G., 173-195, 201f., 301, 360, 580. **Life,** 173ff.; rejects abstract ideas, nominalism, 176-178; mentalism, 178-188; primary and secondary qualities, 179f.; ideas and notions, 181; self, soul, 181; God, 181, 187; answers to objections, 182-186; refutes skepticism, 186, atheism, 187; establishes immortality, 187f.; evaluations, 188-195.
Bernard, C., 427.
Beithelot, P., 427.
Biedermann, A. E., 351.
Biran, M. de, 405f., 426.
Boehme, J., 314.
Bonaparte, Louis Napoleon, 419.
Bonar, H., 602.
Boodin, J. E., 595.
Borgia, Caesar, 397, 607.
Bosanquet, B., 351, 483.
Boutroux, E., 426f.
Bowne, B. P., 485.
Bradley, F. H., 351, 483, 609.
Bridges, J. H., 423.
Broad, C. D., 221, 602.
Brown, T., 242.
Bruno, G., 11, 27-36.
Buchanan, J., 248.
Buddhism, 379f.
Burton, J. H., 601.
Butler, J., 221, 224.
Byron, G. G., 184, 240, 310.

Cabanis, P. G., 405.
Caird, E., 351, 483.

- Caird, J., 351, 483.
 Calkins, M. W., 484.
 Carlyle, T., 35, 483, 496.
 Carr, H. W., 613.
 Cartesianism, 86-88.
 Categories, 269ff., 299, 301f., 329ff., 517f., 582f., 612.
 Causation, 48, 97, 153, 203ff., 271, 333f., 360f., 438ff.
 Channing, W. E., 218.
 Charles I., 54.
 Charles II, 54, 56.
 Christ, 93, 240, 247, 348ff.
 Christianity, 34, 45, 130, 163f., 247f., 314f., 348, 379, 396, 399f., 447, 503f.
 Chubb, T., 223.
 Clauberg, 87.
 Cohen, H., 401.
 Cohn, J., 402.
 Colden, C., 248.
 Coleridge, S. T., 483.
 Collins, A., 223.
 Common Sense philosophy, 243. See Intuitionism.
 Comte, A., 408-425, 444, 445, 472. Life, 408ff.; positivism, 411ff., 417; law of the three stages, 412ff.; classification of the sciences, 415ff.; sociology, 417ff.; social statics, 418ff.; social dynamics, 420ff.; religion, 421ff.; significance, 423ff.
 Condillac, E. B., 231, 405.
 Congreve, R., 423.
 Contract, social, 66, 110, 166f., 215, 236.
 Cooper, T., 248.
 Copernicus, 29f., 57, 253.
 Cordemoy, de, 87.
 Cousin, V., 406f.
 Creighton, J. E., Preface, 351, 484.
 Croce, B., 351, 352.
 Dante, 17, 20.
 Darwin, C., 338, 372f., 393, 456, 578.
 Deism, Deists, 223-226, 229, 232, 239, 248.
 Demonstration, Demonstrative knowledge, 73, 157f. See Reason.
 Descartes, R., 9, 10, 70-89, 98, 145. Life, 70f.; method, 72f.; innate ideas, 73f.; error, 74; *cogito ergo sum*, 74ff.; skepticism, 75; God, 76ff.; substances and qualities, 79ff.; freedom, 81; mechanistic view of life, 81f.; interactionism, 82f.; contributions, 84f.
 Dewey, J., 10, 351, 394, 530-559, 609. Life, 530ff.; education, 536ff.; democracy, 537ff.; reflective, instrumental, operational thinking, 541ff., 546; logic, 544ff.; ethics, 546ff.; political philosophy, 549f.; aesthetics, 550ff.; general philosophy and metaphysics, 552ff.; soul, consciousness, 555; freedom of will, 555f.; experience, 556f.
 Dewitt, Jan, 92, 107.
 Dialectic, 274ff., 327ff., 350.
 Diderot, D., 42, 231.
 Dimnet, E., 427.
 Dolson, Grace N., 607.
 Drake, Durant, 581.
 Dualism, Epistemological, 191; metaphysical, 573; psychological, see Interactionism, Occasionalism.
 Durant, Will, 51, 112, 603.
 Durkheim, E., 427f.
 Ebert, 604f.
 Education, 169ff., 232, 238f., 534, 536-541.
 Edwards, Jonathan, 246f.
 Egoism, 65, 220f., 446, 476.
 Einstein, A., 578.
 Eliot, George, 423.
 Emerson, R. W., 8, 35, 248, 483.
 Empiricism, Empiricists, 40, 146ff., 189, 217, 436ff., 525ff.
 Enlightenment, 7, Part II; general attitude of, 139ff.
 Epiphenomenalism, 59.
 Erdmann, J. E., 351.
 Error, 74.
 Espinas, A., 427.
 Essences, nominal and real, 155.
 Ethics, 34ff., 63ff., 95, 107ff., 121, 158f., 162f., 213ff., 219ff., 281ff., 305ff., 339ff., 378f., 394ff., 421, 446ff., 470-477, 502f., 546ff., 575, 590, 599f.
 Eucken, R., 401.
 Evil, problem of, 131ff., 500f., 594.
 Evolution, 455, 462ff.; creative, 562ff.; emergent, 584f.
 Extension, 80, 99. See Space.

- Falckenberg, R., Preface, 5.
 Fechner, T., 400f.
 Feuerbach, L., 350.
 Fichte, J. G., 11, 294-309, 312.
 Fischer, K., 351.
 Fiske, J., 478, 610.
 Forge, la, 87.
 Foster, C. B., 613.
 Fouillée, A., 427.
 Franklin, B., 247.
 Freedom of the Will, 81, 88, 106f., 128, 162f., 210, 214, 284, 286f., 305, 334f., 442f., 499f., 514, 555f., 570, 592f.
 Frye, A. M., Preface.
 Fuller, B. A. G., 249, 607.
- Galen, 23.
 Galileo, 30, 49, 57.
 Gentile, G., 351.
 Geulincx, 87.
 Gilson, E. H., 427.
 Gladstone, W. E., 224, 435.
 Glockner, H., 351, 605.
 God, 17, 24, 31f., 34, 51, 76ff., 98ff., 123f., 129ff., 161, 181ff., 211, 279ff., 288ff., 336, 348, 391, 421f., 452, 478, 490, 523f., 550, 575, 593ff.
 Goethe, 25, 90, 240, 310.
 Golden Rule, 66, 447.
 Good. See Ethics.
 Graves, F. P., 603.
 Green, T. H., 351, 483, 547, 603.
 Guyau, J. M., 427.
- Halévy, E., 602.
 Hammond, W. A., 484.
 Harris, W. T., 351, 484.
 Harrison, F., 423.
 Hartley, D., 225.
 Hartmann, E. von, 400.
 Haydon, A. E., 613.
 Hedonism, Hedonists, 62, 162, 214f., 284, 430, 447, 474.
 Hegel, G. W. F., 102, 313f., 316-349. Life, 316ff.; dialectic, 318, 327ff.; organic theory of truth, 319ff.; Absolute, 320ff.; concreteness, 322f.; concrete universal, 323; negativity, 324f.; pantheism, 325f.; logic, 328ff.; categories, 329ff.; philosophy of nature, 336ff.; philosophy of mind, 338ff.; ethics, 339ff.; the state, 343f.; history, 344f.; art, 345ff.; religion, 347ff.; Christianity, 348.
 Hegelianism, neo-Hegelianism, 349ff., 482ff., 531, 578.
 Helvétius, 232.
 Hendel, C. W., 218.
 Herbart, J. F., 00.
 Herbert of Cherbury, 145, 223.
 Herder, J. G., 241f.
 Hibben, J. G., 484, 603.
 History, 307f., 344, 412ff., 444.
 Hitler, A., 397.
 Hobbes, T., 52-69. Life, 52-56; materialism, 57ff.; psychology, 58ff.; epiphenomenalism, 53; association of ideas, 60f.; nature, 63; commonwealth, 64f.; laws of nature, 65f.; influence, 66ff.
 Hobhouse, L. T., 609.
 Höfding, H., Preface, 603, 608, 613.
 Holbach, D. von, 233f.
 Holt, E. B., 579.
 Hook, S., 559.
 Howison, G. H., 484.
 Humanism, Humanists, 21ff.
 Hume, D., 10, 196-218, 221, 224, 227, 256, 257, 412, 430, 580. Life, 196-198; impressions and ideas, 198-200; relations, 200f.; association of ideas, 200f.; rejects matter and self, 201ff.; causation, 203-206; habit, 206; belief, 206ff.; identity, 206ff.; skepticism, 208ff.; miracles, 210; free will, 210; self, 210f.; religion, 211f., 216f.; emotions and passions, 213f.; volition and reason, 214; hedonism, 214f.; utility, 215; moral sense, 215; social contract, 215f.; significance, 217.
 Husserl, E., 402.
 Hutcheson, F., 215, 220f., 257.
 Huxley, T. H., 59, 208, 513, 578, 601.
- Idealism, 120, 178ff., 189f., 268, 301, 305, 325ff., 351, 482ff., 491f.
 Idea, Absolute, 327ff.
 Ideas, abstract, 149, 176ff., see Universals; complex, 149, 198ff.; innate, 73f., 143ff.; simple, 146, 198ff.; in Schopenhauer, 362, 372ff.

- Immortality, 133, 187f., 212, 287f., 501f., 524f.
 Impressions, 199f.
 Independence, Declaration of, 244.
 Induction, 48ff. See Empiricism.
 Intelligence, 566ff.
 Interactionism, 82f.
 Intuition, Intuitive Knowledge, Intuitionism, 73, 96f., 157ff., 203, 209, 222, 243, 361.
 Jacobi, F. H., 90.
 James, William, 10, 394, 426, 506-529. Life, 506ff.; tender and tough mindedness, 510f.; pragmatic method, 511ff.; anti-intellectualist, 513; substance, 514; freedom of the will, 514; tychism, 515f.; pluralism, 516ff.; categories, 517ff.; nature of truth, 519ff.; realism, 522, 527ff.; religion, 523ff.; radical empiricism, 525ff.; consciousness teleological, 510, 528.
 Jefferson, Thomas, 244, 247.
 Jesus. See Christ.
 Johnson, Samuel (American), 245f.
 Johnson, Samuel (British), 183.
 Kant, I., 10, 114, 242, 253-293, 298f., 360f. Introductory, 253-255; life, 255-260; synthetic judgments a priori, 261-263; perception of space and time, 265ff.; judgments and categories, 268-272; schematism, 269ff.; self, 272ff.; synthetic unity of apperception, 273; dialectic, 275; soul, 275f.; world, 276; antinomies, 276ff.; God, 279ff., 287ff.; moral philosophy, 281ff.; categorical imperative, 281-285; autonomy, 284f.; political philosophy, 285f.; summum bonum, 287; immortality, 287f.; aesthetics, 289-291; teleology, 291f.
 Keats, J., 310, 483.
 Knight, A. J., 607.
 Kohler, J., 351.
 Lachelier, J., 426.
 Ladd, G. T., 484.
 Laird, J., 218, 595.
 Lamarck, J. B. de, 337, 393, 455, 468f.
 La Mettrie, J. O. de, 232.
 Laplace, P. S., 455.
 Lasson, A., 351.
 Lasson, G., 351.
 Law, natural, 65f.
 Leibniz, G., 9, 11, 88, 92, 114-135, 256, 598. Life, 114-118; symbolic logic, 115; and Spinoza, 116; calculus, 117; idealism, 118-120; continuity, 119, 121; space and time, 119; force, 119f.; pluralism, 120; identity of indiscernibles, 121; souls and spirits, 122, 133; *petites perceptions*, 122; God, 121, 123, 129-133; pre-established harmony, 123-125; panpsychism, 125f.; theory of knowledge, 126-128; eternal truths, 127; contingent truths, 127f.; sufficient reason, 128; free will, 128; City of God, theodicy, 131ff., 134f.
 Leo XIII, 6.
 Lessing, E., 90, 241.
 Levi, A. W., Preface.
 Lévy-Bruhl, E., 428, 603, 608.
 Locke, J., 10, 112, 139-172, 223, 225, 226, 231, 244, 526, 581. Life, 141ff.; innate ideas, 143-146; origin of ideas, 146-153; simple ideas, 146f.; primary and secondary qualities, 147-149; powers, 148f.; complex ideas, 149f.; abstract ideas, 149; relations, 149f.; 152f.; modes, substances, 150ff.; cause and effect, 153; language, 154-157; real and nominal essences, 155; nominalism, 155f.; knowledge—intuitive, demonstrative, sensitive, 157-160; religion, 160-166; God, 161; ethics, 162; toleration, 164-166; political philosophy, 166-169; social compact, 167; natural rights, 167f.; property, 168; philosophy of education and conduct of understanding, 169ff.
 Logic, 47ff., 72ff., 95ff., 155ff., 203ff., 268ff., 299ff., 328ff., 436ff.
 Lotze, R. H., 401.
 Louis XIV, 92, 111, 116, 228.
 Lovejoy, A. O., 36, 250, 581, 599, 602, 605.

- Luther, M., 23.
 Lyell, C., 455.

 McCosh, J., 249, 603.
 McDougall, Wm., 524f., 609.
 Mach, E., 402.
 Machiavelli, N., 26f.
 MacKaye, J., 609.
 McTaggart, J. E., 483.
 Maistre, J. de, 404.
 Malebranche, N., 87f.
 Malthus, T., 433.
 Maritain, J., 427.
 Martineau, J., 103.
 Marvin, W. T., 579.
 Matter, 57f., 81f., 99f., 119, 201ff., 441f., 573f., 586.
 Marx, Karl, 350.
 Materialism, Materialists, 57ff., 233, 248f.
 Mathews, S., 613.
 Mead, G. H., 315, 605.
 Meiklejohn, Donald, Preface.
 Meinong, A., 402.
 Mentalism, 138ff.
 Mercier, D., 6, 427.
 Mersenne, 87.
 Methods in philosophy, 19, 22, 23, 39, 72ff., 93ff., 117f., 140, 146, 261, 299ff., 318ff., 365ff., 436ff., 487, 511, 544, 561, 582.
 Metz, R., 595.
 Mill, James, 432f.
 Mill, J. S., 112, 397, 433-454, 457, 515. Life, 433ff.; logic, 436-441; kinds, 437; causation, 438ff.; mathematics, 441; positivism, 441ff.; self, 442; freedom of will, 442; social science, 443ff.; ethnology, 443; education, 443; sociology, 443f.; history, 444f.; political economy, 445f.; ethics, 446ff.; liberty, 448ff.; laissez faire, 449f.; women, 450; representative government, 450; religion, 450ff.
 Mind, 81f., 99f., 120f., 152, 178ff., 198ff., 261ff., 298f., 338ff., 361ff., 442, 489ff. See Self, Spirit, Soul, Interactionism, Parallelism, Panpsychism.
 Miracles, 163, 210.
 Monads, 33, 120ff.
 Montague, W. P., 579, 595, 601.
 Moore, G. E., 221, 579.
 Moral sense, 215, 220f.
 Morgan, C. Lloyd, 595.
 Morris, G. S., 351, 484, 486, 530.
 Münsterberg, H., 402, 484.

 Natorp, P., 401.
 Nicholas of Cusa, 23f.
 Nietzsche, F., 384-400. Life, 384ff.; *Birth of Tragedy*, 387ff.; Dionysus and Apollo, 387f.; *Thoughts out of Season*, 389f.; "scientific period," 391f.; *Thus Spake Zarathustra*, 392; third period, 392ff.; evolutionism, 393; logic and ethics, 394f.; will for power, 388, 394f.; eternal recurrence, 395; transvaluation of values, 295ff.; Christianity, 385, 387, 391, 395ff., 399.
 Nirvana, 380, 382.
 Nominalism, 18, 155, 177.
 Notions, 181, 202, 245, 330.
 Novalis, 310.

 Occam, William of, 17f.
 Occasionalism, 84, 87f.
 Ontological argument, 78, 98, 129, 279f., 336.
 Opinion, 96.

 Paine, Thomas, 248.
 Palmer, G. H., 351, 484.
 Panpsychism, 100, 125f., 496ff.
 Pantheism, 225, 325. See Glossary.
 Paracelsus, 24ff.
 Pascal, B., 87.
 Paulsen, F., 401.
 Peirce, C. S., 511.
 Perry, R. B., 509, 529, 579, 601, 610, 611, 612.
 Pessimism, 363f., 376f., 380f., 400.
 Petrarch, 20.
 Pfeleiderer, O., 351.
 Philosophy, modern, general characteristics and spirit, 1-5; periods, 6-9; methods of interpretation, 9-11.
 Philosophy, moral. See Ethics.
 Philosophy, political and social, 26, 64ff., 108ff., 213ff., 236ff., 285ff., 306f.

- Picard, M., Preface.
 Pitkin, W. B., 579.
 Plato, 35, 359, 364, 365.
 Price, R., 222.
 Poincaré, H., 427.
 Pope, Alexander, 131, 224, 599, 602.
 Porter, Noah, 249, 603.
 Positivism, 411ff., 417, 441ff.
 Pratt, J. B., 581.
 Predicament, ego-centric, 192.
 Predication, initial, 191.
 Priestley, J., 225f., 248.
 Pringle-Pattison, A. S., 351, 483.
 Protestantism, 130.
- Qualities, primary and secondary, 59, 80, 147ff., 179, 194, 586f.
- Rand, B., 218.
 Randall, J. H., 602.
 Rationalism, Rationalists, 40, 73, 95ff., 120, 256f., 317ff.
 Ratner, J., 559.
 Ravaisson, F., 426.
 Realism, medieval, 18; modern, 50f., 190-194, 242f., 249, 527f., 579ff.
 Reason, 96f., 214, 221, 261ff., 298ff., 318ff., 541ff.; practical, 281ff.; sufficient, 128, 365ff. See Intelligence, Rationalism.
 Recent Period, Part IV; general characteristics of, 355f.
 Reductionism, 415f., 478, 585.
 Régis, 87.
 Reid, T., 242.
 Religion, 45f., 110, 131ff., 163ff., 211ff., 224, 226ff., 239, 246ff., 348-350, 421ff., 450f., 460, 523f., 549f., 575f., 593f.
 Renaissance, 7, Part I; Humanistic period, Division A; Natural Science period, Division B.
 Renouvier, C., 426.
 Ricardo, D., 433.
 Rickert, H., 402.
 Rights, natural, 65, 167, 244.
 Riley, I. W., 604.
 Rogers, A. K., 293, 504, 581.
 Rohault, 87.
 Rosenstock-Huussy, E., Preface.
 Rousseau, J. J., 234-242, 257, 397.
- Royce, J., 351, 483-505, 517, 605. Life, 485ff.; scientific agnosticism, 487ff.; self, 489ff.; Absolute, 490; absolute idealism, 491ff.; description and appreciation, 494ff., language, 494; panpsychism, 496ff.; freedom, 499ff.; problem of evil, 500f.; immortality, 501f.; loyalty, 502f.; Christianity, 503f.
 Rush, B., 248.
 Russell, B., 134, 135, 579.
- Saint Simon, Comte de, 407f., 409f.
 Santayana, G., 209, 581.
 Scheler, M., 403.
 Schelling, F. W. J. von, 296, 311-315, 388.
 Schiller, F., 310.
 Schilpp, P. A., 559.
 Schlegel, F. and A. W., 296, 310.
 Schleiermacher, F., 296.
 Scholasticism, 6, 17-21.
 Schopenhauer, A., 11, 355-383, 388, 399. Life, 357-359; compared with Locke, Kant, Fichte, 360ff.; will, 361f.; ideas and Ideas, 362; voluntarism, 362f.; pessimism, 363f.; *Four Fold Root of the Sufficient Reason*, 365-369; will as idea, 368f.; objectification of will, and its grades, 369ff.; art, 373ff.; original sin, 376; music, 377; ethics, 378f.; religion, 379ff.; criticisms, 381f.
 Schwegler, F. K. A., 351, 605.
 Scotists, 17.
 Scott, W., 310.
 Scott, W. R., 602.
 Scotus, John Duns, 17.
 Secrétan, C., 426.
 Self, 201ff., 272f., 489f. See Soul.
 Sellars, R. W., 581, 595.
 Seth, J., 351.
 Shaftesbury, first Earl of, 142.
 Shaftesbury, third Earl of, 142, 215, 220, 257.
 Shakespeare, 376.
 Shand, A. F., 609.
 Sharp, F. C., 602.
 Shelley, P. B., 240, 310.
 Sidgwick, H., 221, 453.
 Skepticism, 75, 208ff.
 Smith, Adam, 221f., 227.

- Social contract or compact, 66, 167, 215f., 236ff.
 Solipsism, 192f., 369f., 601.
 Sophie Charlotte, 117.
 Soul, Spirit, Spiritual substance, 83, 122, 126, 152, 275f. See Self.
 Space, 119, 265f. See Extension.
 Spaulding, E. G., 579.
 Spencer, H., 393, 397, 455-481, 578.
 Introductory, 455f.; life, 456f.; unknowable, 457ff.; relativity, 459; agnostic, 460; force, 461; law of evolution, 462-467; dissolution, 467; biology, 468f.; psychology, 469f.; sociology, 470ff.; justice, 472f.; ethics, 473ff.; duty, 476; egoism and altruism, 476f.; optimism, 477; evaluations, 478ff.
 Spinoza, B., 9, 11, 32, 88, 90-113, 309, 313, 323f. Life, 90-93; motive and method, 93-97; attitude to religion, 93; view of God, 94f.; mysticism, 94; ethics, 94f., 108f.; kinds of knowledge—opinion, reason, intuition, 96f.; causation, 97; substance, 98; attributes, 99ff.; parallelism, 100, 104ff.; panpsychism, 100; pantheism, 102; *natura naturans* and *naturata*, 102; modes, 103-106; freedom, 106f.; social philosophy, 108-112; *conatus*, 108; *Theological-Political Treatise*, 109ff.; *Political Treatise*, 110; social contract, 110; higher criticism of Bible, 109f.; democracy, 111; religious freedom and toleration, 111f.
 Spirit, Spiritual Substance, See Soul.
 Stace, W. E., 352.
 Stewart, D., 242.
 Stirling, J. H., 483.
 Strauss, D. F., 349f., 389.
 Strong, C. A., 581.
 Sublime, 290f.
 Substance, 79ff., 98f., 150ff.
 Sympathy, 215, 222, 227, 378, 418.
 Synthetic judgments, 261ff.
 Taine, H., 425f.
 Tarde, G., 427.
 Teleology, 291f., 571f.
 Thilly, F., 484, 599.
 Thomas, G. F., Preface.
 Thomas Aquinas, St., See Aquinas.
 Thomists, 16, 17.
 Time, 119, 265f., 270.
 Tindal, M., 223.
 Toland, J., 173, 223, 225.
 Townsend, H. G., 250, 604.
 Truth, "two fold," 20.
 Tufts, J. H., Preface, 613.
 Tychism, 515
 Ueberweg, F., Preface, 603, 604, 605.
 Universals (Abstract Ideas), 18, 149, 154f., 176ff., 323, 522.
 Universals, concrete, 323f.
 Utilitarians, 430ff., 473ff.
 Utility, 215, 430.
 Vaihinger, H., 402.
 Vesalius, 23.
 Voltaire, 131, 228ff.
 Von Baer, 455.
 Wagner, R., 388, 390.
 Ward, J., 483.
 Watson, J., 351.
 Westermarck, E., 609.
 Wheelwright, P. E., Preface, 218
 Wild, J., 600.
 Windelband, W., Preface, 401f.
 Wright, W. K., 599, 612.
 Wundt, W., 401.
 Zeller, E., 351.
 Zeno of Elea, paradoxes, 568.

